A SYSTEM DYNAMICS FRAMEWORK FOR ASSESSING NATION-BUILDING IN THE DEMOCRATIC REPUBLIC OF THE CONGO

BY

LIEUTENANT COLONEL WILLIAM (BILL) E. CRANE
United States Army National Guard

USAWC CLASS OF 2009

Prudens Futuri

U.S. Army War College, Carlisle Barracks, PA 17013-5050

REPORT DOCUMENTATION PAGE

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
23-03-2009	Civilian Research Project	

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
A System Dynamics Framework for Assessing Nation-Building in the Democratic Republic of the Congo	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
LTC William E. Crane	5e. TASK NUMBER
	5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)	8. PERFORMING ORGANIZATION REPORT NUMBER
Old Dominion University Virginia Modeling, Analysis and Simulation Center 1030 University Boulevard Suffolk, VA 23435	

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
U.S. Army War College 122 Forbes Ave Carlisle, PA 17013	
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION / AVAILABILITY STATEMENT
DISTRIBUTION A: UNLIMITED

13. SUPPLEMENTARY NOTES

14. ABSTRACT
This paper begins with a history of the Democratic Republic of the Congo. It discusses some of the prominent other nation actors and their impact upon the Democratic Republic of the Congo. This paper identifies the key nodes to Nation Building specific to the Democratic Republic of the Congo and it models these nodes using System Dynamics. It uses the Nation Building approach offered by the *Beginners Guide to Nation Building* by the Rand Corporation. It uses their methodology and the model to determine the critical nodes that should receive emphasis in funding and support to help improve the overall situation in the Democratic Republic of the Congo to ensure the state continues on the path to good governance and democracy.

15. SUBJECT TERMS
Democratic Republic of the Congo, Natural Resources, Nation Building, Modeling, Simulation, Political Warfare, Soft Power, System Dynamics

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT UNCLASSIFED	**b. ABSTRACT** UNCLASSIFIED	**c. THIS PAGE** UNCLASSIFIED	UNLIMITED	74	**19b. TELEPHONE NUMBER** *(include area code)*

USAWC CIVILIAN RESEARCH PROJECT

A SYSTEM DYNAMICS FRAMEWORK FOR ASSESSING NATION-BUILDING IN THE DEMOCRATIC REPUBLIC OF THE CONGO

By

Lieutenant Colonel William (Bill) E. Crane
United States Army National Guard

Project Advisers

Dr. John Sokolowski
Old Dominion University

Dr. Catherine Banks
Old Dominion University

Dr. Anna Waggener
U. S. Army War College

ABSTRACT

AUTHOR: LTC William (Bill) E. Crane

TITLE: A System Dynamics Framework for Assessing Nation-Building in the Democratic Republic of the Congo

FORMAT: Civilian Research Paper

DATE: 23 March 2009   WORD COUNT: 16,208   PAGES: 74

KEY TERMS: Democratic Republic of the Congo, Natural Resources, Nation Building, Modeling, Simulation, Political Warfare, Soft Power, System Dynamics.

CLASSIFICATION: Unclassified

This paper begins with a history of the Democratic Republic of the Congo. It discusses some of the prominent other nation actors and their impact upon the Democratic Republic of the Congo. This paper identifies the key nodes to Nation Building specific to the Democratic Republic of the Congo and it models these nodes using System Dynamics. It uses the Nation Building approach offered by the *Beginners Guide to Nation Building* by the Rand Corporation. It uses their methodology and the model to determine the critical nodes that should receive emphasis in funding and support to help improve the overall situation in the Democratic Republic of the Congo to ensure the state continues on the path to good governance and democracy.

ACKNOWLEDGEMENTS

help in the development of my System Dynamics model. I could not have done this research without the help of both of them.

This has been a tremendous learning experience and I will carry many lessons learned with me for the rest of my life. There is no doubt this educational experience will make me a better leader, and I think more importantly, a critical thinker. VMASC has a number of great tools and opportunities and is a true partner with the Department of Defense.

Table of Contents

Chapter 1: Problem Formation
    Chapter 1.1: General Problem
    Chapter 1.2: Scope and Assumptions
    Chapter 1.3: Research Goals
Chapter 2: Case Study – Democratic Republic of the Congo
    Chapter 2.1: Recent History
    Chapter 2.2: Current Conditions
Chapter 3: External Influences
    Chapter 3.1: Regional Countries
        Chapter 3.1.1: Rwanda
        Chapter 3.1.2: Uganda
    Chapter 3.2: Belgium
    Chapter 3.3: China
    Chapter 3.4: India
    Chapter 3.5: United States
Chapter 4: System Dynamics Modeling
    Chapter 4.1: Introduction to System Dynamics
    Chapter 4.2: Indices Available for Modeling
    Chapter 4.3: Qualitative to Quantitative Mapping – Preparing the Data
    Chapter 4.4: Democratic Republic of the Congo – Systems Dynamic Concept Model
        Chapter 4.4.1: Model Development
        Chapter 4.4.2: Incident Suppression and Insurgent Creation Loops
        Chapter 4.4.3: War Weariness and Troop Escalation Loops
        Chapter 4.4.4: Potential Insurgent Loop
        Chapter 4.4.5: Insurgent Fundraising, Weapons Replacement and Insurgent Funding Incident Loops
Chapter 5: Conclusions
    Chapter 5.1: Security
    Chapter 5.2: Humanitarian Relief
    Chapter 5.3: Governance
    Chapter 5.4: Economic Stabilization
    Chapter 5.5: Democratization
    Chapter 5.6: Development
Chapter 6: Follow On Research

List of Illustrations

x

List of Tables

List of Acronyms

ADF/NALU – Allied Democratic Forces/National Army for the Liberation of Uganda

AFRICOM – Africa Command

BCC - Banque Centrale du Congo (Central Bank of the Congo)

CNDP – Congrès National pour la Défense du People (National Congress for the Defense of the People) mostly comprised of ethnic Tutsis and led by Laurent Nkunda.

DRC – Democratic Republic of the Congo

EC – European Commission

FARDC – Forces Armées de la République Démocratique du Congo (Congolese National Army)

FAZ – Zairian Armed Forces

FDI – Foreign Direct Investment

FDLR – Forces Démocratiques de Libération du Rwanda (Democratic Forces for the Liberation of Rwanda) mostly comprised of ethnic Hutu militia.

GNI – Gross National Income

IDA – International Development Association

MONUC – Mission de l'Organisation des Nations Unies en République démocratique du Congo (Mission of the United Nations Organization in the Democratic Republic of the Congo.

ODA – Official Development Assistance

UNICEF – United Nations Children's Fund

WGI – World Governance Index

Preface

We have all heard about the horrific events that are going on in the Sudan in the Darfur Region. There is a lot of publicity and call to action to support the region. While I agree it is horrific and they need to be helped, it pales in comparison with what has been going on in the Democratic Republic of the Congo for years and continues still today. The level of lives being lost in the Democratic Republic of the Congo has not been seen since World War II. Over 5.4 million have lost their lives in the Democratic Republic of the Congo over the last 10 years, some resulting from the war, but most from the aftereffects of the war, such as hunger and disease. The humanitarian crisis continues to persist to this day and the local population has to deal with constant violence every day. Some of the violence is unimaginable, in a Washington Post article by John Holmes events on the ground include descriptions of women being gang-raped in front of crowds including their husbands. He states, "It's the use of it as a weapon of terror. It's the way it's done publicly, for maximum humiliation."[1]

The size and resources of the Democratic Republic of the Congo, as well as its location on the African continent, contribute to its strategic importance to not only the United States, but the entire world. The significant mineral wealth that exists throughout the country is needed in both developed and developing countries. The extraction of these natural resources and use of the funding from this extraction can provide jobs and income needed to help the citizens of the country. While it is encouraging to note that, in 2006, the Democratic Republic of the Congo has already conducted free and fair elections, attention is needed to sustain this fragile democracy, otherwise it will slide back into chaos. If this occurs, the Democratic Republic of the Congo will become

another failed state vulnerable to global terrorism. This loss, a loss of strategic location (geopolitical) and vast mineral wealth (economical), would have a significant negative affect on the global community.

The current global economic downturn has the potential to push the Democratic Republic of the Congo away from democracy. As the western nations focus their attention on their own economic woes, they may find it untenable to provide large sums of money to help in nation-building. If the level of commitment reduces, this could prove disastrous at this critical juncture for the Democratic Republic of the Congo. The international community must stay committed to the hope of democracy in the Democratic Republic of the Congo and continue is push in assisting its viability.

A SYSTEM DYNAMICS FRAMEWORK FOR ASSESSING NATION-BUILDING
IN THE DEMOCRACTIC REPUBLIC OF THE CONGO

CHAPTER 1: PROBLEM FORMATION

1.1 General Problem

The 2002 National Security Strategy laid bare the dichotomy of future prospects

for the African Continent: "In Africa, promise and opportunity sit side by side with

disease, war, and desperate poverty. This threatens the core values of the United

States: 1) preserving human dignity; 2) our United States strategic priorities and 3)

combating global terror."[2] An excellent example of this is the Democratic Republic of the

Congo. This country has seen its share of African ills such as disease, war, and

desperate poverty from its colonial age throughout its fight for independence (declared

June 30th, 1960) and into its present state in the 21st century.

The United States, especially the United States military (AFRICOM), must

determine the state's role in the fragile state of the Democratic Republic of the Congo

with a view to its national security and regional security among the African Central

States. The Democratic Republic of the Congo is one of the most diverse countries on

the continent of Africa. It still holds many natural resources including copper, cobalt,

and coltan, short for Columbite-tantalite, is a black, tar-like mineral that is used in the

electronics industry because of its ability to resist heat and hold a high electric charge is

critical to the global, high technology economies. Additionally, the state encompasses a

large biodiversity that must be protected for medical science research. With the

Democratic Republic of the Congo's diverse population and central location in Africa,

the state possesses the geopolitical attributes for a future leadership role in Africa.

There are over 200 African ethnic groups indigenous to the Democratic Republic of the

Congo. Consequently, national unity will only be achieved if all parties, especially the

Tutsi and Hutus, feel they are included in the democratic process.

This paper explores the influences or factors that affect the development of the

Democratic Republic of the Congo as a vibrant democracy. These factors will be used

to create a model of the Democratic Republic of the Congo using System Dynamics as

the modeling tool. The model will suggest areas of involvement where the United

States can best spend its resources and to have the most influence in encouraging a

more viable and effectual democracy in the Democratic Republic of the Congo. What

should the United States do to encourage and support a democracy in the Democratic

Republic of the Congo? What level of effort should the United States' commit to the

Democratic Republic of the Congo given the spillover of conflict regional disruption? Is

this crisis part of the Global War on Terrorism? These questions will be addressed

through a System Dynamics model of the Democratic Republic of the Congo that will

characterize complex relationships among and between the government, the people,

the economy, and foreign influences within the state and the impact of these

relationships on Democratic Republic of the Congo national security and central African

regional security.

1.2 Scope and Assumptions

Africa is an incredibly large and diverse continent with many countries, provinces,

peoples, and religions. The Democratic Republic of the Congo is a microcosm of Africa

as proffered by Donovan C. Chau in his publication, *U.S. Counterterrorism in Sub-

Saharan Africa (SSA): Understanding Costs, Cultures and Conflicts*.[3] Chau divides

Sub-Saharan Africa into three distinct regions: East, West, and Southern Africa. Due to

its enormous size (1/2 the size of the United States), the Democratic Republic of the Congo is included in all of these regions.

Much of the research discussing how to combat terrorism focuses primarily on the military response. The body of literature addressing the topic of developing democracies in countries vulnerable to terrorism that will allow their people to thrive provides little in the way of civilians succumbing to terrorism be it negative (non-support) or supporting (membership) it. Those taking the lead with AFRICOM see the need to fill this vacuum of alternatives.

AFRICOM's "new" structure is now focused on "…war prevention rather than war-fighting. Africa Command intends to work with African nations and African organizations to build regional security and crisis-response capacity in support of U.S. government efforts in Africa."[4] Therefore, it will be critical for AFRICOM to understand the problems and challenges faced by these states in order to support democracy building. The Democratic Republic of the Congo is an emerging democracy that will continue to see a significant number of challenges over the next several years, challenges that include the splitting of the country into more provinces, the continued illegal exploitation of natural resources, the potential building capacity in all government ministries, and the upcoming elections.

1.3 Research Goals

The goal of this research is to develop a System Dynamics Model of the present status of the Democratic Republic of the Congo in an effort to characterize the strengths and weaknesses of the state. The model will depict how complex relationships within the Democratic Republic of the Congo, as a system, affect the current crisis the state now experiences. The model will allow for predictive analysis – adjustments to the

system – that will suggest what is needed to create a viable democracy in the Democratic Republic of the Congo.   This will help to determine what the United States' policy should be toward the Democratic Republic of the Congo. The goal is to suggest where the United States should focus its resources to achieve the best return on investment, support for democracy in the Democratic Republic of the Congo. It will also indicate other arenas where the United States could benefit from synergistic relationships with other countries. These synergies could be used to encourage these states to fund specific factors in the model with a view to support democracy in the Democratic Republic of the Congo. The Democratic Republic of the Congo model can serve as a case-study to proffer how the United States can address its National Security Strategy goals.

CHAPTER 2: CASE STUDY – DEMOCRATIC REPUBLIC OF THE CONGO

2.1 Recent History

The Democratic Republic of the Congo has experienced a number of struggles and conflicts in its history. Its modern history (19th century) introduced a new struggle and new enemy, Europe, with the reign of Belgium's King Leopold II whose great desire for power and prestige came at any cost. King Leopold hired an American correspondent by the name of Henry M. Stanley, who had already completed one Africa Expedition, to navigate the Congo River and acquire agreements from the tribal leaders for deeds to their lands. Mr. Stanley was very successful at achieving this goal, and at the Berlin Conference in 1885, King Leopold was able to obtain personal title to the area, naming it the Congo Free State.

The African tradition in the Democratic Republic of the Congo was that the land belonged to all people, and the products obtained from it were shared among the entire clan. When King Leopold obtained the "titles" to the lands, he decreed the land belonged to the state and all products obtained from the land belonged to the state. In reality, this meant it belonged to him as sole title holder. Leopold's principal aim henceforth was to amass as large a fortune for himself as possible.[5]

This was an extremely brutal time in the Democratic Republic of the Congo as King Leopold's functionaries maimed, tortured, raped, and killed citizens in order to get them to comply with collecting ivory or rubber. They would often kidnap the wives and children in order to compel the men to go deeper into the forest to collect rubber. They had to go ever deeper into the jungle because of the vast exploitation of the rubber and the men would often cut down the vines so they were destroying the plants that produced the rubber.

The conditions were so bad that outcries from reporters in England began the call to stop the exploitation. This push was led by Edmund Dene Morel, an employee of the Elder Dempster shipping company that held the sole contract for shipping goods between Belgium and the Congo Free State. He was working dockside in Antwerp when he soon noticed that the records he carefully compiled for his employer did not conform with the trade statistics that the État Indépendant du Congo announced to the public.

Footnote: One of the favorite implements of the time was the chicotte – a whip of raw, sun-dried hippopotamus hide, cut into a long sharp-edged corkscrew strip. Usually the chicotte was applied to the victim's bare buttocks. Its blows would leave permanent scars; more than twenty-five strokes could mean unconsciousness; and a hundred or more – not an uncommon punishment – were often fatal.[6]

He was stunned to discover that the arms cargo sent to the Congo whose disclosure had so upset the Secretary of State was not an exception; it was the rule: "Elder Dempster steamers employed in the Congo trade had been regularly shipping for the past few years prodigious quantities of ball cartridge and thousands of rifles and cap-guns either consigned to the State itself or to sundry Belgian 'trading' Companies." Next, Morel became aware that somebody was skimming handsome profits off the top, to the tune of tens of millions of today's dollars. He then learned that of the imports going *into* the Congo, nearly 80% consisted of articles which were remote from trade purposes. Yet, the Congo was exporting increasing quantities of rubber and ivory for which, on the face of the import statistics, the natives were getting nothing or next to nothing.[7]

These facts caused a great deal of conflict for Morel and he began a campaign to expose the truth. One reason for Morel's internal conflict was that "[his] humanitarian political ancestors, unlike his socialist contemporaries, had firmly believed that improving the lot of the downtrodden people everywhere was good for business." He adhered to treatment of colonial subjects to 'promote the civil and commercial interests of Great Britain.' Like the Parliamentary Select Committee of 1830, Morel believed, 'Savages are dangerous neighbors and unprofitable customers, and if they remain as degraded denizens of our colonies, they become a burden upon the State."[8]

Morel's campaign to expose the truth was helped by an Irish gentleman who worked for the British consular service, Roger Casement. Casement convinced the British government to let him take an investigative trip throughout the Congo Free State to find out if the accusations about the treatment of the native people in the production of rubber were true. Casement's involvement brought legitimacy to what was being

exposed from other sources because he was an authority of His Britannic Majesty's Consul.

The pressure continued to build on King Leopold II and the Belgium government to end the inhumane practices in the Congo Free State. In 1908, the Belgium government could no longer ignore the outcry and it took administrative control of the country, officially renaming it the Belgian Congo. Despite international pressure, this did not stop the exploitation of the country. In fact, the exploitation was now simply legitimized because it was being done by the Belgian government, for virtually no changes were made in the compensation to the Congolese for the extraction of its mineral assets.

However, Belgium did provide a semblance of structure to the Congo, such as in the area of government administration. Also, the [Catholic] Church attended to education and moral welfare, and the mining corporations produced the revenue to support the whole enterprise.[9] But the Belgium government made the same serious error that most Colonial powers made. They believe that the African population, given strict upbringing, wise leadership and enough material benefits would be content with Belgian rule for the rest of their lives.[10] Added to that was the fact that the Congolese, as subjects of Belgium, had no say in the matter.

The news of Ghana receiving its independence in 1957 and neighboring French colonies gaining their own autonomy motivated the Congolese people to seek their own independence. Like many of its African neighbors, subjects of France or Britain, Congolese people had no experience in self-governance. In fact, none of them had an education beyond secondary school because the Belgian government worked hard to keep them isolated and minimally educated to ensure continued control. Nonetheless,

the people of the Congo rebelled against Belgium and on June 30, 1960, the Belgian government granted the Congolese their independence. Of course, this was not a smooth transition into a vibrant country. The country suffered a domestic lack of skill in governance. Through significant maneuvering, Patrice Lumumba, at only 35 years of age and poorly educated, became the Democratic Republic of the Congo's Prime Minister and his rival, Joseph Kasavubu, became President, a mostly ceremonial position.[11]

One of Lumumba's first acts was to remove all of the Belgian officers who he believed were trying to cause a rebellion against him. The Congolese populace saw this as an opportunity to release all of their pent-up anger against the white population in the Democratic Republic of the Congo. As a result the whites fled the country, leaving it without any expertise in the administration of governance. The result was an ever decreasing internal security and separate areas trying to cede from the Democratic Republic of the Congo. These attempted secessions were supported by Western governments with mining interests in these provinces. Lumumba became more and more desperate to stop the secessions and went to the UN and the United States to get support. Neither of these entities granted his requests so he turned to the Soviet Union.

With the Prime Minister and the President of the Democratic Republic of the Congo having such divergent views and, more importantly, divergent international supporters, the stage was set for a splintering of the government. These divisions broke down into four different power bases and each had their own outside supporters and army. One power base was in Leopoldville, supported by Western governments and led by Lieutenant General Joseph Mobutu and Joseph Kasavubu. The second power base was led by Antoine Gizenga, a supporter of the recently imprisoned Patrice

Lumumba in Stanleyville, supported by the Soviet bloc and Nasser in Cairo. Moise Tshombe established the third power base in Katanga and the fourth power base led by Albert Kalonji in south Kasai (the Diamond State) and relied on Belgian support. [12]

Lumumba was seen by many in the Western world as an unstable and ineffectual leader who was also willing to turn to the Soviet Union for support. This was a cause of great concern to the Western countries and so they began pushing Kasavubu to take action. Eventually Kasavubu made a radio announcement dismissing Lumumba from office. Of course, Lumumba did not agree with this and he called the action unconstitutional, continuing to try and retain his power over the area. The situation caused a great crisis between the two leaders. Consequently, the United States turned its support to Colonel Mobutu, who suspended all political activity and promptly called for the expulsion of all Soviet troops. However, Mobutu did not take the power for himself; Kasavubu remained as the President of the Democratic Republic of the Congo. The country had become yet another proxy battle between the forces of Democracy and Communism.

The Western governments continued to fear what Lumumba might be able to foment in the Democratic Republic of the Congo so they began multiple plans to have him "neutralised, physically if possible." [13] Lumumba was slowly losing grip on his country and was only able to stay in power because he remained in the area protected by the United Nations. But, Lumumba eventually made the fateful mistake of leaving that secured area and was taken prisoner by the Western-backed Mobutu and Kasavubu proxies. However, Lumumba supporters would not be defeated and, in fact, were able to capture the Kivu Province and maintain control as Mobutu and Kasavubu continued to stumble. Lumumba's ability to stir trouble caused great fear in the

Leopoldville-held government of Mobutu and Kasavubu because he was viewed as the liberator of the Democratic Republic of the Congo from the colonial powers. A plan was devised by the Belgian and United States governments to have Lumumba executed. This threw the Democratic Republic of the Congo into further chaos and 5 years of instability and civil unrest. In 1965, Joseph-Desire Mobutu, now Lieutenant General, overthrew Kasavubu in a United States supported coup. Mobutu received overwhelming support from the United States because of his staunch opposition to Communism, which the United States feared would get a foothold in Africa.[14]

The events following Mobutu's rise to power and self-declaration as president can only be described as the raping of a country. Worse, the travesties were being perpetrated by one of their own. Mobutu held power for 32 years and during those years he was able to retain power by holding sham elections in which he would "eliminate" the opposition.[15]

Immediately following his rise to power, Mobutu nationalized the Union Miniere, the Belgian copper mining enterprise that had been the dominant force in the Congo since the colonial days.[16] He used this nationalization as a means to siphon off millions, perhaps even billions, of dollars for himself. In 1975, Mobutu nationalized much of the economy, removed religious teachings from the schools, and forced everyone to adopt African names. This included his renaming the country Zaire, and himself Mobuto Sese Seko.

Mobuto lived well and received much Western support while his people suffered dearly under a collapsed economy. Despite this, the West continued their support because it gave them a base country in which to conduct counter-communism

operations into Angola as well as remain the prominent importer of Zaire's mineral exports.

The collapse of the Soviet Union and the civil wars in neighboring countries of Rwanda and Burundi began the eventual downfall of Mobutu. Following the collapse of the Soviet Union, the United States paid much less attention to Africa because it no longer perceived a communist threat. Additionally, in 1994, the Democratic Republic of the Congo experienced a large influx of refugees from Rwanda and Burundi due to the ethnic fighting, especially between the Hutus and Tutsis in Rwanda.[17] Many of these refugees were former Hutu *génocidaires* escaping Rwanda after the fall of the Rwandan capital and the last Hutu Power strongholds to the Tutsis. These *génocidaires* pledged to continue to fight until the last Tutsi was killed. The leaders of the *génocidaires* used the refugee camps as bases for acquiring money and supplies to continue their campaign. The *génocidaires*, with the help of Zairian armed forces (FAZ), tried to first rid these Zaire provinces of Tutsis. Laurent-Desre Kabila seized upon this to form his own militia, the Alliance des Forces Démocraitques pour la Libération du Congo-Zaïre (AFDL), supported by Rwanda and Uganda, to begin a rebellion against the Zairian and *génocidaires* forces that ultimately led to Mobutu's ignominious flight from the country.[18]

Kabila went into the Kinshasa and declared himself president, returning the country's name to the Democratic Republic of the Congo. At first, Kabila was hailed as the savior of the country by the Congolese people and by many neighboring countries' leaders. However, over time he became much like Mobutu and set up the "machines" to keep himself in power. He used the hatred of Rwandan Tutsis in the Democratic Republic of the Congo to help him maintain support, but this caused him to have problems with Rwanda and Uganda who had helped him first achieve power. The two

11

countries backed forces to overthrow Kabila, but Kabila then turned to Angola and Zimbabwe, who came to his defense and stopped the rebellion from overthrowing him. However, the concessions demanded by Angola and Zimbabwe in return for their assistance cost the Democratic Republic of the Congo dearly.

Before the conflict ended, other countries joined in the fighting in the Congo: Burundi joined Rwanda and Uganda while Namibia and Chad joined Angola and Zimbabwe. All seemed to have their own reasons to join the conflict, but the most significant reason was the resources that could be obtained in the Democratic Republic of the Congo. Ultimately, Angola gained control of the Democratic Republic of the Congo's petroleum distribution and production while Generals from both Angola and Zimbabwe seized whatever riches they had access to. In fact, it was estimated by a United Nations Panel of Inquiry that over a three-year period $5 billion of assets were transferred from the state mining sector to private companies without payment.[19]

Kabila survived the years of conflict only to be assassinated by one of his own bodyguards. In the power vacuum, his son, Joseph Kabila, was installed by his father's cronies because they viewed him as a weak and malleable puppet. However, Joseph Kabila turned out to be stronger than they bargained for and he soon began the process of reconciliation with the rebel groups, eventually negotiating the withdrawal of Rwandan Army forces. In December of 2002, Joseph Kabila formed a Transition Government of national unity by acquiring the signatures of all warring parties on the Pretoria Accord.

It appeared the country was finally headed in the right direction as over 15 of the 25 million registered Congolese voted July of 2006 to approve the new constitution.

This vote was aided by the presence of United Nations' observers and peacekeepers. In October of the same year, Kabila took 70% of the vote and was elected as President. The election of Joseph Kabila as President of the Democratic Republic of the Congo on December 6, 2006, resulted in the end of the Transition Government.

The Democratic Republic of the Congo continues to be a fragile state that is not fully under one central power. The country continues to have Democratic Forces for the Liberation of Rwanda (FDLR) operate in the Kivu provinces. These forces continue to conduct raids into Rwanda and are an ever-continuing excuse for the Rwandan Army to conduct incursions into the Democratic Republic of the Congo. These cross-border incursions are a constant diplomatic tension between the Democratic Republic of the Congo and Rwanda today.

2.2 Current Conditions
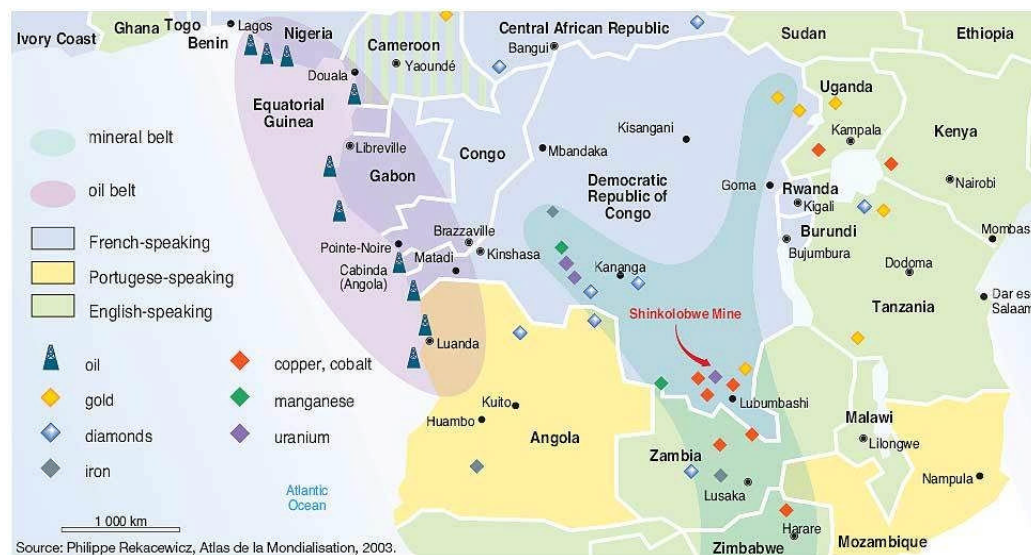
Figure 1. Mineral Wealth in the Democratic Republic of the Congo[20]

The map above indicates the dispersion of the mineral wealth in the Democratic Republic of the Congo. The DNC is one of the richest nations in Africa in terms of

natural resources, and yet living conditions for the majority of the populace continue to be dismal, especially in the eastern provinces of Nord-Kivu and Sud-Kivu.

In fact, as late as November 7, 2008 continued fighting persists between the Congolese Army and a large force of Congolese rebels led by renegade Lieutenant General Laurent Nkunda, who considers himself the protector of the Tutsis living in the Congo.[21] In many ways he is correct because the current government, military, and police force do not control these areas. They are not trained or adequately equipped and in many instances they serve only to contribute to the problems.

The Congolese soldiers often extract "tariffs" from the civilian population before they are granted permission to travel the roads. This is, of course, illegal, but no one is in the region enforcing the law. The Congolese people continue to have problems meeting their most basic needs, resulting in the death of thousands from diseases long removed in the Western world. A January 2008 IRC survey found that 5,400,000 people have died from war-related causes in Congo since 1998 – the worlds deadliest documented conflict since WWII. The vast majority have died from non-violent causes such as malaria, diarrhea, pneumonia and malnutrition. These maledictions are preventable and treatable when there is access to health care and nutritious food.[22] Sadly, the Democratic Republic of the Congo does not provide this for its people. This is a humanitarian disaster that is well beyond what is currently going on in the Darfur. Without intervention by the international community, it is obvious millions more will die in the Democratic Republic of the Congo.
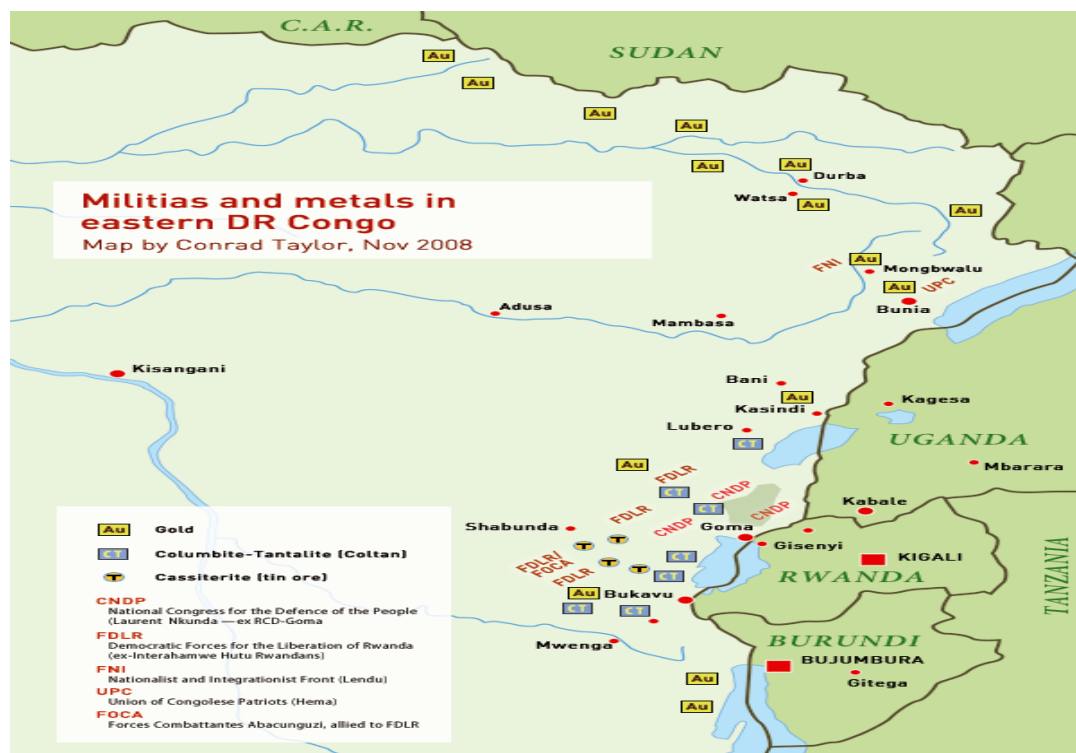
Figure 2. Militia Locations in the Democratic Republic of the Congo and Minerals they Control[23]

One of the key issues that must be resolved is the on-going battles between the militias and the FARDC. As shown in the map in Figure 2, the militias control some of the wealthiest mineral areas. They especially control the areas containing the highest concentration of coltan which is easily mined by primitive methods. This gives the militias access to a lot of wealth through the illegal sale of these minerals.

CHAPTER 3: EXTERNAL INFLUENCES

3.1: Regional Countries

3.1.1: Rwanda. It is impossible to talk about the on-going conflict in the Democratic Republic of the Congo without talking about the countries that border the state. Of particular interest is Rwanda, currently a supported ally of the United States.

Rwanda too has been gripped by a dark history of ethnic fighting; this history has spilled over into the Democratic Republic of the Congo and continues to be a point of friction.

Rwanda was once seen as a great example of what a stable African country could be. It had a steadily growing economy with strong government institutions, but under the surface were growing ethnic tensions between the majority Hutus and the minority Tutsis. These tensions began to boil over in the early 1990s as Hutu leaders called for the killing of all minority Tutsis, thus instigating the largest genocide in the world since the Jewish Holocaust. After a few months, the Tutsis and the international community stepped in, causing many of the leaders of the genocide to flee into the Democratic Republic of the Congo where they continued their campaign to rid Rwanda of all Tutsis. Groups such as the Democratic Forces for the Liberation of Rwanda (FDLR) began living in refugee camps in the Democratic Republic of the Congo and were well supported through international aid. The FDLR used this aid and their safe haven to raise funds to continue their insurgency to remove all Tutsis from Rwanda.

Along with the ethnic cleansing was the forced mining of Coltan, which was then exported through Rwanda. Children are forced to mine the mineral to support militia groups operating in the Democratic Republic of the Congo and neighboring countries. This illegal export helps to sustain the militia groups and weakens the central government's hold on the Democratic Republic of the Congo.

3.1.2: Uganda is another neighboring country that influences the conflict in the Democratic Republic of the Congo. Uganda backs rebels in the Ituri district and in turn the rebels ship minerals to Uganda to help support its government. One such example is gold. Uganda has very little gold but was able to export 7.3 tons in 2004 from a domestic production in the same year of only 1.4 tons.[24]

16

The United Nations continues to cite Uganda's border with the Democratic Republic of the Congo as a transshipping point for weapons that support the militias. In 2004, the UN documented two shipments of arms from Uganda to Ituri's militias, including150 cases of 7.62mm ammunition along with Kalashnikov assault rifles, rocket-propelled grenade launchers and mortars.[25] All of these weapons are listed on the weapons embargo.

3.2: Belgium

The Democratic Republic of the Congo was once a Free State owned by the Belgian king and eventually became a Belgian Colony. Belgium has maintained its strong ties to the Democratic Republic of the Congo since gaining its independence. For example, Belgium continues to be one of the largest importers of goods from the Democratic Republic of Congo. Belgium is also a key ally for the Democratic Republic of the Congo at the United Nations and in the European Union. Whether this interest stems from humanitarian or financial reasons is irrelevant. What is significant is that Belgium helps to keep the Democratic Republic of the Congo in the public eye and assists in obtaining support for the Democratic Republic of the Congo from the United Nations.

3.3: China

China has been parlaying itself into the African continent for many years with the promise of providing infrastructure for the countries with whom they bargain for minerals and other raw materials. These raw materials are critical to the continued growth of the Chinese expanding and thriving economy. China is one of the world's largest manufacturers of finished goods, especially electronics, which require the illegally mined coltan. The heat resistant mineral is used in capacitors that are critical components in

cell phones and all other electronic devices. Coltan is abundant in the Democratic Republic of the Congo and it is believed that 66% of the world's supply of the mineral is in the eastern provinces of Northern and Southern Kivu. The Democratic Republic of the Congo recently accepted a 6 billion dollar agreement (later increased to $9 billion) with China. In this deal, Democratic Republic of the Congo obtains roads, railways, hospitals, and schools in exchange for exclusive mining rights to cobalt and copper.[26] China has made similar deals with other African nations and they have received some blowback from these other nations from the citizens because of poor working conditions, poor wages, and the closing of local businesses due to low priced Chinese goods imported into their country.

3.4: India

India is developing closer ties with the Democratic Republic of the Congo by offering to assist with medicine and education in return for access to natural resources. This potential alliance would be in direct competition with the alliance proposed by China. However, India has the ability to bring technological advances to the Democratic Republic of the Congo. Like China, India is also a growing economic power that is seeking the natural resources necessary to expand. Additionally, India is a technologically advanced society and, as such, needs the type of resources the Democratic Republic of the Congo possesses to support the electronics industry. In order to accomplish this endeavor, India and the Democratic Republic of the Congo signed a pact supporting an Indo-Congolese joint commission supporting economic, scientific, technical, and social-cultural cooperation. [27] Finally, India also provides a significant number of soldiers for the United Nations mission to the Democratic Republic of the Congo.

3.5: United States

Since the fall of the Soviet Union, the United States has taken more of a hands-off approach to the Democratic Republic of the Congo. However, the United States does provide a market for many of the Democratic Republic of the Congo products and ranks in the top 5 of trading partners with the Democratic Republic of the Congo. On the other hand, the United States sends a significant amount of aid to Rwanda, both monetarily and weaponry. This policy has been a point of contention with the Democratic Republic of the Congo. But, the United States was the number one donor of aid to the Democratic Republic of the Congo in terms of gross dollars additionally; the United States continues to support the United Nations mission to the Democratic Republic of the Congo. In 2007, the United States provided over $462 million in support to the Democratic Republic of the Congo. This support was broken down as follows: $77 million in development and security assistance; $85 million in humanitarian assistance (including refugee support); and $300 million to support the MONUC peacekeeping mission.[28]

CHAPTER 4: SYSTEM DYNAMICS MODELING

4.1: Introduction to System Dynamics

System Dynamics is a method of modeling that was developed by Dr. Jay W. Forrester in the 1950's when he was at the Massachusetts Institute of Technology. System Dynamics provides a method for understanding the behavior of complex systems over time and is representative of what actually happens in a social system. Often, topics are discussed and debated as shown in Figure 3, where there is a problem, action is taken to solve the problem and a result is achieved. We all know, of course, this is not reality. We cannot simply take action in a system and then forget

about it. Actions taken by policymakers and decision makers create results that may or

may not be what is actually desired.

Information about ———————————► Action———————————► Result
the problem

Figure 3: Problem Solving Without a Feedback Loop

Therefore, in the System Dynamics method, internal feedback loops that affect

the model are added and a continuous system is achieved in which information is

gathered, action is taken, a result is achieved, and the result provides information back

into the system and the process starts over again. The feedback loops help to more

accurately describe these complex systems and provide a better method to determine

the cause and effect as shown in Figure 4.

Action

Information about
the problem

Result
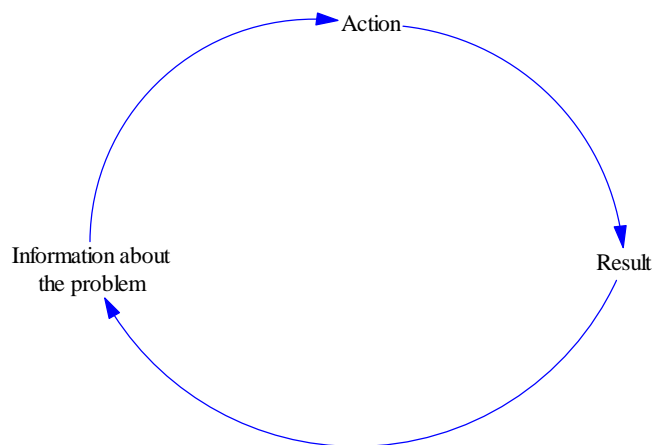
Figure 4: Problem Solving with a Feedback Loop

This method has been shown to more accurately predict government policy

changes on social systems. Often these effects are counterintuitive and the outcome of

these policy changes actually causes more problems in the social system.   In the early

work of System Dynamics, researchers discovered some surprising results regarding social systems. First, most issues are internally caused and yet most of the time the tendency is to blame outside forces. Second, the actions people take to solve a problem, believing they are solving the problem, are often the cause of the problems. Third, the very nature of the dynamic feedback structure of social systems tends to mislead people into taking ineffective or even counterproductive action. Fourth, there is usually an understanding of the information available to make a decision, but, the system in its entirety is often misunderstood as well as the complex interactions of all of the actions being taken.[29] This is what makes System Dynamics modeling such a valuable tool for policy makers.

System Dynamics modeling provides valuable insight into the outcomes of changes in the system of a developing country such as the Democratic Republic of the Congo. With this model, the user can quickly identify the critical loops in the system and what the outcome of each loop will be, as well as the outcome of interactions between the different loops.

4.2: Indices Available for Modeling

There are a large number of non-profit, non-governmental, governmental and United Nations organizations that collect data and provide it as indices for comparison purposes. This data is invaluable to a researcher for modeling. I have included a table below with some of the indices reviewed and their location in the hope that it will help provide easy access to information on the Democratic Republic of the Congo.

Index	Location
Governance Index	http://info.worldbank.org/governance/wgi/index.as
Ease of Doing Business Index	http://www.doingbusiness.org/economyrankings/
Polity Index	http://www.systemicpeace.org/polity/DRCono2006.pdf
Fund for Peace Index	http://www.fundforpeace.org/web/index.php?option=com_content&task=view&id=290&Itemid=204

Table 1: Available Indices

Although these indices may be available, they must be carefully considered when they are being used for modeling. Researchers must review the source carefully and determine if there is a motivation for the indices to be skewed in a particular direction to support an activity. It may be more useful to develop indices from the literature review as this will provide a more balanced perspective. One such method to do this review and preparing it for modeling purposes will be discussed below.

4.3: Qualitative to Quantitative Mapping – Preparing the Data

As explained above, there are a large number of indices that already provide data for use in research. These indices are very useful for researchers and planners, but alone they do not tell the whole story. That is why it is important to develop models using this data so researchers, planners and policymakers can see how the data interacts in complex systems. This will provide decision makers a tool for better decision making, allowing them to see how their policy decisions will affect the system and how different subsystems will be affected. These indices, though, do not always provide all the data required for modeling these complex systems and the researcher must make a review of literature to get qualitative data, such as statements from experts or from the local population. This qualitative data alone can not be modeled and it must be changed into quantitative data. The researcher must be able to take available indices and develop their own indices and put them into a useful quantitative format.

This takes a great deal of time and effort, but is critical to the usefulness and accuracy of the model for helping a leader make a decision. One such method was developed by Dr. John Sokolowski and Dr. Catherine Banks.

This method is a three step process that includes historical research, qualitative to quantitative mapping, and development of the system dynamics model. The first step is an exhaustive research of the subject country for historical information. This information helps to place events into a context and thus help to provide a reason behind the cause and effect. This cause and effect can be very helpful in the qualitative to quantitative mapping as the researcher uses that context to place significance of information they gather from this context. As an example for this paper, the Rwandan genocide that caused a massive influx of Rwandan refugees into eastern Democratic Republic of the Congo plays a major factor in the current insurgency in the Democratic Republic of the Congo. This information helped with the development of the causal loop diagram.

Once the historical data is reviewed and gathered, it is then placed into context and assigned a value based on that context. In continuing with the example above about the Rwandan genocide, one of the indices that could be further developed is the External Influences Index. In reviewing the history, it was found that Rwanda earned $250 million from Democratic Republic of the Congo's coltan from 1999 to 2000. This is a significant piece of information and it has a significant impact on the current conditions in eastern Democratic Republic of the Congo. As can be seen by this example, this method, by placing things in context, helps to identify those events that are significant to current conditions. This information is then used as quantitative data sets that are used in the model.

In developing this model, a review was completed on the historical and current information on the Democratic Republic of the Congo. This information was placed into indices that help to organize the data in a manner that allows for better organization. These indices include Polity Index, Counter-Insurgency Index, Social Capacity Index, Human Rights Index, and Insurgency Index.

1. *Polity Index* measures a state's democracy and its effectiveness.

2. *Counter-Insurgency* Index measures the will, capability, and commitment of the counter-insurgency effort.

3. *Social Capacity Index* measures the population's ability to effect social change.

4. *Human Rights Index* measures the civil liberties abuse and the degree of political marginalization experienced by the civilian population.

5. *Insurgency Index* measures the strength of the insurgency and the factors that affect it.[30]

A table of these indices and some of the factors for each are included below. This is not an all inclusive list, but an example of some of the factors that were considered when developing the model. These indices were helpful in providing a framework in which to categorize what impact the factors would have in the nation-building process and how critical it was for that factor to be addressed.

Polity Index	Counter-Insurgency Index	Social Capacity Index	Human Rights Index	Insurgency Index
Unemployment	Government Soldier Corruption	War Weariness	Government Soldiers Interference of Local Populace Lives	Weapons
Security	War Weariness	Government Policies	Outside Country Actors	Material Support
Corruption	Total Action to Suppress Insurgent Activity	Unemployment	Insurgent Activity	Outside Country Actors
Pressure to Reduce the Insurgency				Illegal Mineral Mining
Government Policies				Insurgent Propaganda

Table 2: Democratic Republic of the Congo Indices

From these factors, a Likert scale running from -5 to 5, where -5 is the worst and

5 is the best, can be used to determine what level of impact each factor has in the

model. A sample of how this is accomplished is as in the table below.

Polity Index Factors	Rating
Unemployment	-3
Security	-5
Corruption	-2
Government Policies	1
Counter-Insurgency Index Factors	
Government Soldier Corruption	-3
War Weariness	-3
Insurgency Index Factors	
Weapons	-2
Material Support	-3
Illegal Mining	-5
Insurgent Propaganda	-1
Outside Country Actors	-3

Table 3: Likert Scale Ratings for Democratic Republic of the Congo Factors

As can be seen from the mapping from table 2 above, a review of the literature showed that unemployment, security, corruption and pressure to reduce the insurgency have a direct impact on the Polity Index. These factors are then rated on a Likert scale, as in Table 3, to determine their overall impact on the Democratic Republic of the Congo. These ratings are based on the researcher's review of available literature and provide a sense of what the key issues are for the Democratic Republic of the Congo without actually being on the ground. This method can be used for each of the indices and will be discussed in more detail in chapter 5.

4.4: Democratic Republic of the Congo – Systems Dynamic Concept Model

The development of this model stemmed from the reading of a number of documents and reviewing what the authors felt were the significant issues in the Democratic Republic of the Congo. There is a great deal of historical data on nation building, what works and what doesn't. This information was used in the development of this conceptual model as well.   While the following model is not an all-inclusive one, it incorporates the most critical issues and how they interact in the Democratic Republic of the Congo. The model highlights what areas are having a negative impact on the country progressing and improving for its people. It provides a basic framework from which to begin discussions and debate on what actions must be taken, and in what order, to improve the overall status of the country as well as improve the quality of life for its citizens.
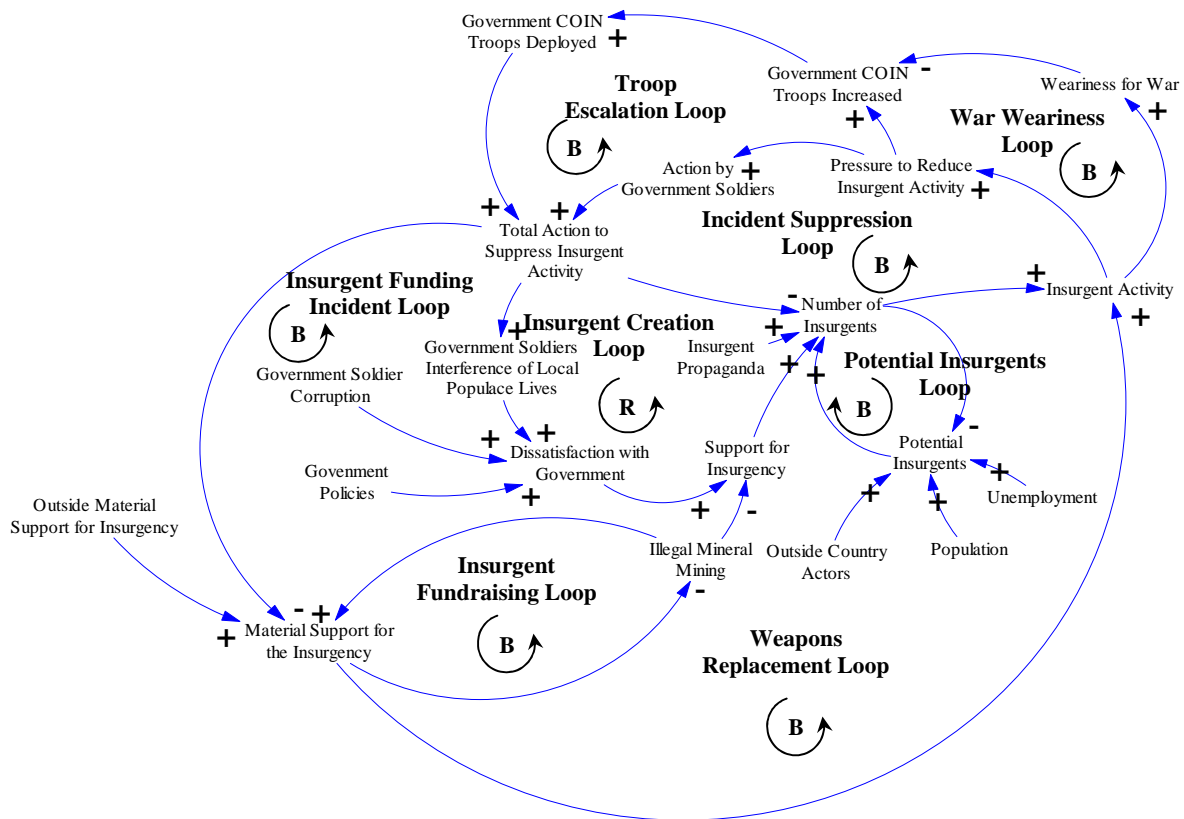
Figure 5. Democratic Republic of the Congo System Dynamics Model

4.4.1: In developing the model above, I studied methods that have been adopted by other researchers such as Dr. Edward G. Anderson[31] and Dr. John A. Sokolowski[32]. I also reviewed the model developed by CAPT Brett Pierson on the Logical Lines of Operations from FM 3-24. In these methods, the insurgency depended on population dynamics and included loops about governance, or the population's perceptions about their government, and how violent acts from the insurgents influence the model. The Democratic Republic of Congo has many similar issues. Of the models reviewed, the model by Anderson provided the closest proximity to what is occurring in the Democratic Republic of the Congo. It was reviewed and modified based on the

differences found in the Democratic Republic of the Congo with elements from models from Dr. Sokolowski. The presence of an insurgency and its ability to conduct operations has a direct impact on the ability of a nation to build up its capacity. That is the primary reason insurgency is a primary focus in research into nation building. The insurgency must be stopped or given a reason to join in the political process in order for a country to move forward. This was evidenced by the recent events in Iraq where the "Awakening" helped to bring diverse groups into the political process, ultimately strengthening the overall security of the country.

The United States Army Field Manual 3-0 defines an insurgency as an organized movement aimed at the overthrow of a constituted government through use of subversion and armed conflict (JP 1-02). It is a condition of politically motivated conflict involving significant intra- or interstate violence but usually short of large-scale operations by opposing conventional forces. Insurgencies often include widespread use of irregular forces and terrorist tactics. An insurgency may develop in the aftermath of general war or through degeneration of unstable peace. Insurgencies may also emerge on their own from chronic social or economic conditions. In addition, some conflicts, such as the Chinese Revolution, have escalated from protracted insurgencies into general wars. Intervention by a foreign power in an insurgency may increase the threat to regional stability.[33] The following discussion explains the individual loops that comprise the overall model.
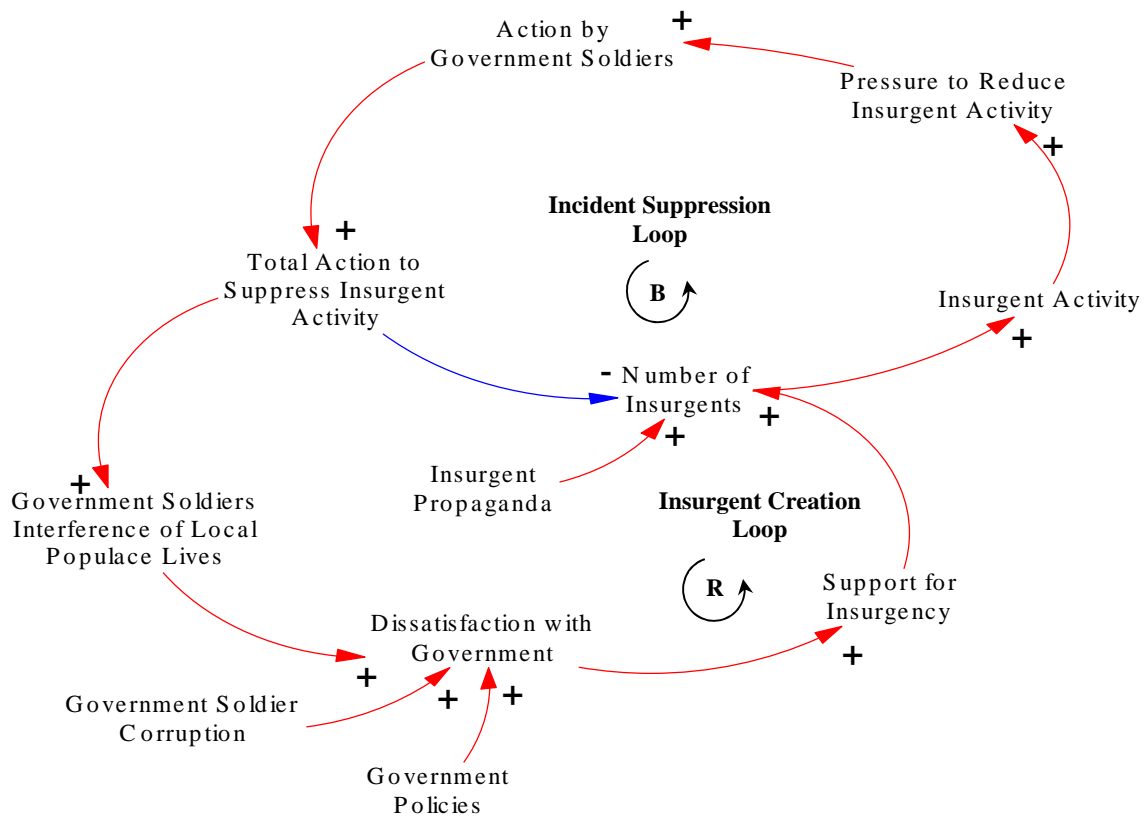
Figure 6. Democratic Republic of the Congo Incident Suppression and Insurgent Creation Loops

4.4.2: First, we will address the Incident Suppression and Insurgent Creation Loops. As discussed earlier in this document, the Democratic Republic of the Congo has seen endless conflict since gaining its independence in 1960. In fact, the unrest dates back even further. The continual conflict, along with the influx of thousands of refugees fleeing the Rwandan genocide in the mid-1990s, provided the impetus for insurgencies to develop. As is evident from the Incident Suppression Loop, there is an additive affect between the number of insurgents and the number of insurgent incidents; the more insurgents, the more insurgent incidents that will occur. As the populace becomes irritated by these continual incidents, they clamor for the government to do

something, placing a great deal of pressure on the government and its security forces to do something to stop the insurgent incidents. Action taken against the insurgents provides a balancing action and this loop is thus labeled because, as more soldiers are placed in the area, they increase their action to suppress insurgent activity. This suppression comes as they capture or kill some of the insurgents, thus this overall loop tends to balance the number of insurgents available to conduct insurgent activities.

But this suppressive activity comes at a cost. The cost and downside of this is the constant interference of the security forces in the daily lives of the local populace. The Insurgency Creation Loop, which is shown in red above and is a reinforcing loop, shows that as government soldiers try to suppress the activities of the insurgency, they begin to impinge upon the civil liberties of the local population. Often, as seen during other insurgencies, innocent people are caught up in the security forces net and with the minimal legal system in the Democratic Republic of the Congo, these innocent civilians may be detained and/or brutalized for days, weeks or even months. This lack of a legal framework and the poor treatment of innocent civilians diminish the civilians' support for the government and in many cases increase their support to the insurgents. The fact that the security forces also brutalize the local populace by stealing from them and raping the women further diminishes the support to the government.   These soldiers often exact a "toll" from the citizens even though it is strictly illegal. They don't trust their own security forces to "do the right thing."

The local populace also criticizes the United Nations mission, MONUC, for not protecting them from their own forces, the FARDC, who are looting and burning villages after military operations.[34] The soldiers often come from tribes that are rivals to the villages where the military operations take place and thus feel no wrongdoing when they

burn and pillage these villages. Of course, there are a couple of issues here that can be

linked back to the central government. First, these soldiers are often from former

militias and their loyalty doesn't necessarily go to the government. Their loyalty tends to

be toward their former leaders. During the reconciliation process, these soldiers were

allowed to continue to be a "unit." They were not divided into mixed tribal units.

Second, their pay is very poor. They do not make enough to sustain their needs and so

they do not fear losing their position. The insurgents often receive support from the

tribes they are affiliated with because they are viewed as protectors from other

insurgent groups and government soldiers. An example of this is Laurent Nkunda, who

the Tutsis consider their protector. The Tutsis will never betray him and, in fact, provide

Nkunda with material support for his insurgents. If this system was examined without a

full understanding of the interactions of these two loops, it might be perceived that an

addition of security forces to the insurgent-held areas would solve the problem. But, as

this is drawn out and the interactions examined, it is easy to see how such an action

can actually have a negative impact on attempts to stop the insurgency. While this may

seem counterintuitive, it is easily apparent when one draws the system and provides the

feedback loop into the system.

Getting the right level of security forces into the area is critical, but of more

importance is getting security forces into the areas that have the confidence of the local

population. That trust must be built up so the local population will be more likely to

support the government security forces and provide them information that will lead to

the capture of killing of the insurgents. A good example of when this tactic was

successful was in Iraq with the "Awakening" that helped the local populations provide

information on the insurgents. This information led to the capture or killing of the

insurgent's leadership and helped lead to the dramatic reduction in insurgent incidents throughout the country. This same method needs to be developed in the Democratic Republic of the Congo so they too can remove the leadership of the insurgents which will, in the long term, reduce the number of insurgent events.
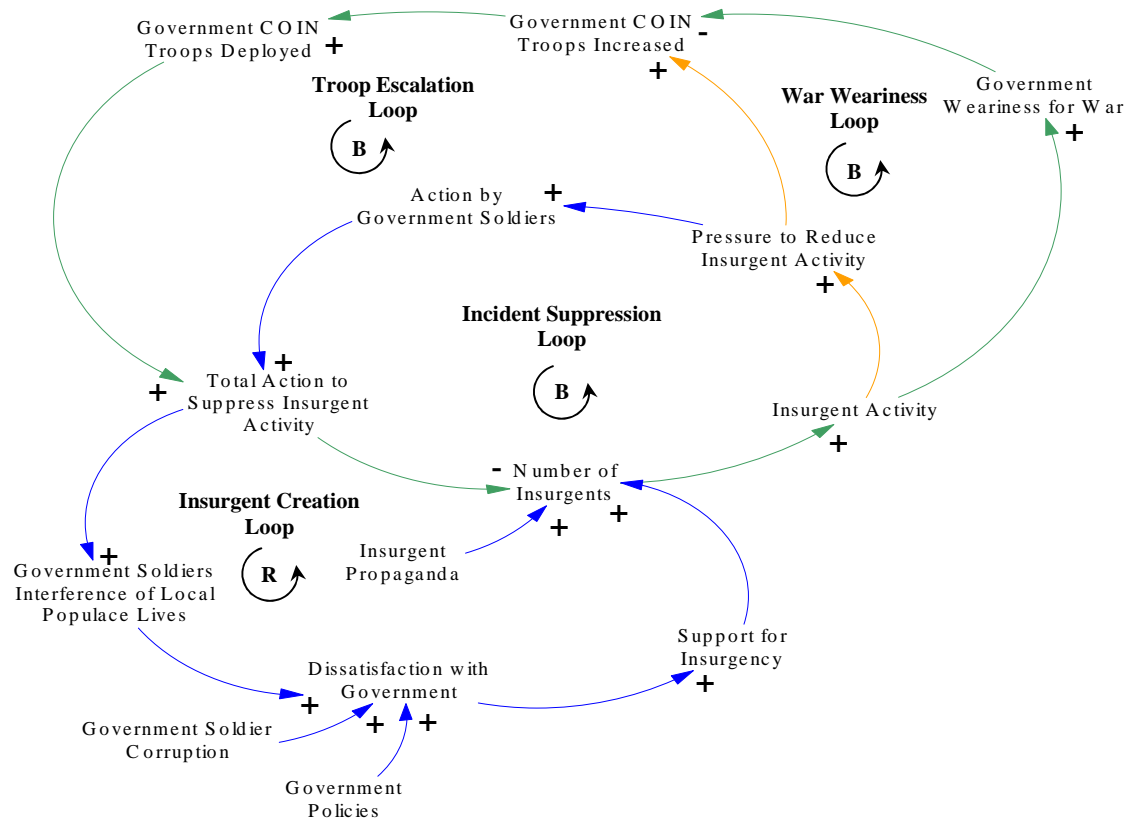
Figure 7. Democratic Republic of the Congo War Weariness and Troop Escalation Loops

4.4.3: Now that we have discussed the Insurgent Creation Loop and the Incident Suppression loop, the War Weariness and Troop Escalation Loops are added. The conflict in the Democratic Republic of the Congo has been on-going for a number of years. The local populace has lost confidence in the government's ability to provide basic services and security to them. This causes a lot of pressure on the government and they begin to become weary of the continual conflict. The War Weariness loop is

shown in green above. It is a balancing loop too, because as the populace continues to

be tired of the insurgent activity, they send in more troops which reduce the number of

insurgents available to conduct insurgent activity. Additionally, the Troop Escalation

Loop, shown with the yellow arrows, will be a balancing loop. Where ever there has

been an increase in the number of counter-insurgency forces, whether MONUC or

FARDC, the number of insurgent incidents has gone down. This of course helps to

reduce the number of insurgents either through arrest or death but, in the case of the

upsurge in FARDC troops causes more government soldier corruption against the

civilian population and thus less support for the central government. This feeds into the

insurgent creation loop as was discussed above. The insurgents use this negative

information to develop a propaganda message against the government soldiers. These

messages as an additive effect for the insurgency because civilians see how they are

being treated by the government soldiers and believe the insurgent message. This is

especially effective where the youth see their parents treated poorly by the government

troops and they seek revenge on the government soldiers. The only real avenue to do

this is through the insurgency providing them the training and material to achieve their

goal.
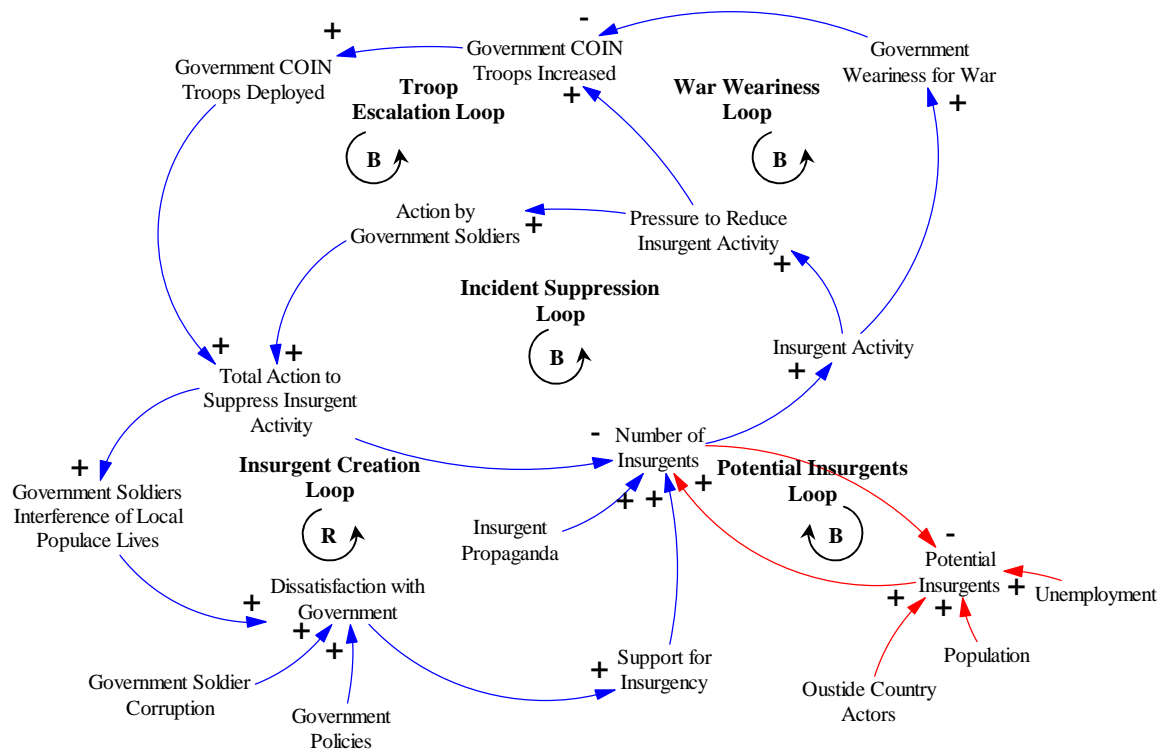
Figure 8. Democratic Republic of the Congo Potential Insurgents Loop

4.4.4: The next loop to be added is the Potential Insurgent Loop shown in red above. The Democratic Republic of the Congo has the third largest population on the African continent at 66 million people. According to the United Nations Population Division, the Democratic Republic of the Congo is ranked fifth for fastest rate of natural increase for population (Table 4) as well as fifth for Youngest Countries (Table 5). This lends itself to offering a large population that is available to join the insurgency if they are so inclined. In fact, as of mid-2007, 47% of Democratic Republic of the Congo's population was below the age of fifteen.[35]

Country or Area	Rate of Natural Increase (percent)
Fastest Rate of Natural Increase	
1. Gaza Strip	4.25
2. Yemen	3.73
3. Somalia	3.38
4. Niger	3.18
5. Democratic Republic of the Congo	3.15
6. Solomon Islands	3.14
7. Oman	3.12
8. Mali	3.10
9. Afghanistan	3.07
10. Nicaragua	3.03

Table 4: Fastest Rate of Natural Increase for Population, 1995-2000.[36]

Youngest Countries or Areas			
1999		**2050**	
Country or Area	*Median Age*	*Country or Area*	*Median Age*
1. Gaza Strip	14.4	1. Gaza Strip	26.9
2. Uganda	15.0	2. Burkina Faso	27.6
3. Niger	15.8	3. Mozambique	27.7
4. Yemen	15.9	4. Somalia	27.8
5. DR Congo	15.9	5. Ethiopia	28.1
6. Somalia	16.0	6. DR Congo	28.1
7. Zambia	16.1	7. Angola	28.3
8. Angola	16.2	8. Guinea-Bissau	28.3
9. Burkina Faso	16.2	9. Niger	28.3
10. Malawi	16.3	10. Congo	28.3
WORLD	**26.4**	**WORLD**	**37.8**

Table 5: Ten Youngest Countries in the World, 1999 and 2050[37]

As this population matures, they will be looking for opportunities to better their lives. If individuals cannot find a legal means to better their lives, they will potentially turn to the insurgencies. This "youth bulge" is going to be seen in many countries in Africa and will be a potential issue for these countries as they try to sustain their population and provide employment opportunities. If there is a large population of fighting-age citizens there is a larger availability for youth to join the insurgency.

The insurgents also use the refugee camps to "recruit" child soldiers. Children as young as 10 years old are forced to become part of the insurgent groups and are often brutalized during their training. Legal employment in the Democratic Republic of the

Congo is dismal considering the mineral wealth of this nation. In fact, the local population lives on less than 300 dollars per year.[38] One major cause for this imbalance is the poor business climate that prevails in the Democratic Republic of the Congo. Many of the business deals signed in the Democratic Republic of the Congo place the citizens at a disadvantage rather than helping to improve their lives. For example, in 2008, the government of the Democratic Republic of the Congo signed a deal with China for the mining of minerals in return for infrastructure improvements. While this appears to be a great opportunity for the people of the Democratic Republic of the Congo, China is also trying to employ its citizens. Consequently, they have been bringing their own people over to the Democratic Republic of the Congo to complete these projects. Thus, few citizens of the Democratic Republic of the Congo actually get employed for these endeavors. The result is further resentment and growing dissatisfaction with the government, providing the insurgents with a damaging public relations message about the central government. The prevalent lack of employment leads individuals to have significant needs that must be met by whatever means necessary. If this means they provide support to the insurgency for additional funds or materials, they will do just that.

The last part of this loop is the outside country actors. There are a great deal of accusations that the Rwandan government actually pays decommissioned soldiers travel expenses to go into the Democratic Republic of the Congo and help the insurgents in illegal mining activities.[39] This is a balanced loop because as insurgents are created, the number of potential insurgents decreases, thus ultimately balancing the loop. This is again an example of how using the model helps envision a counterintuitive effect. If the process of potential insurgents moving to become insurgents is observed

36

in a purely linear fashion, one might mistakenly believe the insurgency would grow in a linear manner. But, by simply displaying it as part of the system, you can clearly see this will not happen.
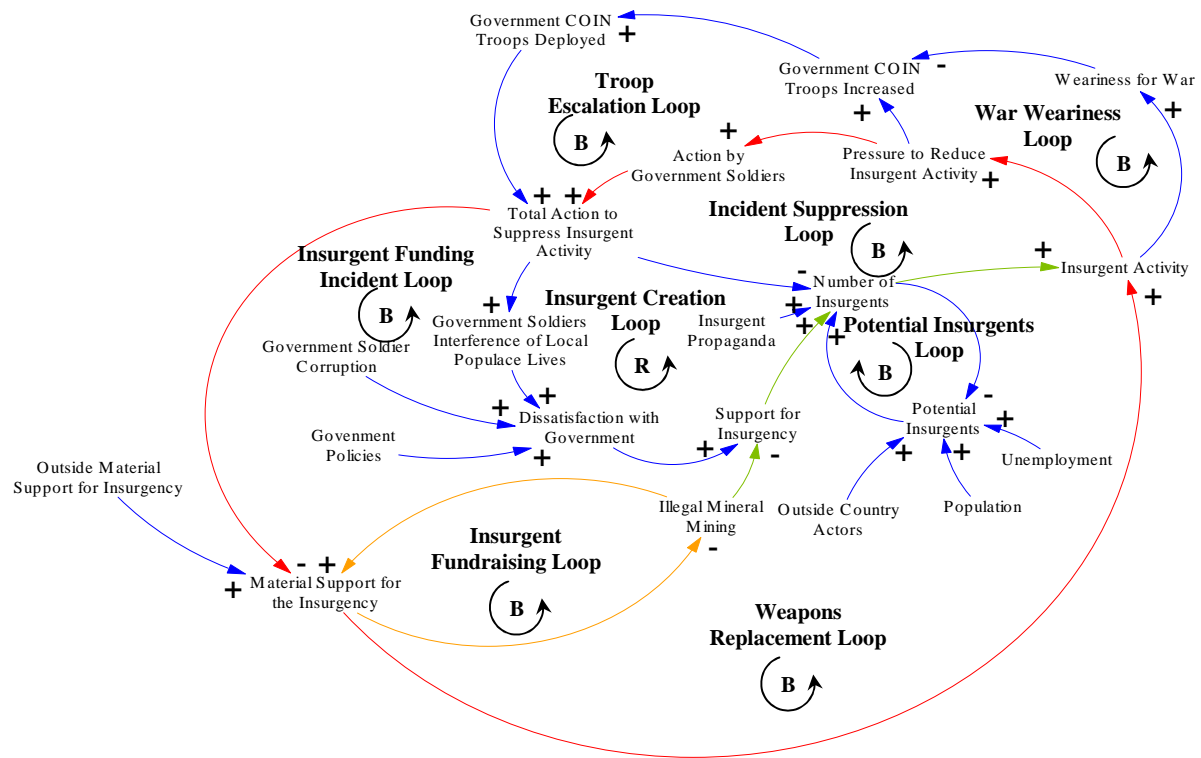
Figure 9. **Democratic Republic of the Congo Insurgent Fundraising, Weapons Replacement and Insurgent Funding Incident Loops**

4.4.5: The final three loops that are added to the model are the Insurgent Fundraising, the Weapons Replacement, and the Insurgent Funding Incident Loops. In the Fund Raising Loop shown in yellow, insurgents use different means to support their material needs and funding. One of the primary means is the mineral resources under their control. The insurgents either mine the minerals themselves or tax the civilians who mine them. These minerals are then sold to buying houses or *comptoirs*. Often these minerals are collected and added to legally mined minerals so that the legally and

illegally mined minerals can not be easily discerned. The insurgents also trade in other illegal products such as ivory and timber.

Another method used by insurgents to support their cause is to place roadblocks in the areas they control, and then tax the trade items that pass along these routes. Additionally, they will often tax the businesses in areas under their control. Civilians in these areas that support the insurgents will grow agricultural products to support the insurgents' needs, some legal and some illegal, such as marijuana. If all else fails, the insurgents live by the law that only the strong survive, stealing what they need from the locals by looting their homes.

All of these different methods produce proceeds that help to further support the militias through weapons purchases and the recruitment of new members. This is a critical node in the country that must be addressed. As long as the insurgents have a means to support their insurgency, their cause will continue to exist and potentially grow. Outside actors may also be encouraged to get involved in the illegal mining trade because they see it as an opportunity to make a profit at virtually no cost. This was clearly shown in the 2002 United Nations report on the illegal mining activities in the Democratic Republic of the Congo [40] and re-affirmed in the 2008 report.[41] This cycle must be broken, but it will be difficult because these illegal actors are not going to easily give up their flow of money.

The United Nations, in a number of resolutions, imposed an arms embargo on all foreign and Congolese armed militias operating in the Democratic Republic of the Congo. The resolutions have been continually renewed and remain in effect today, placing sanctions on groups or individuals who are in the trade or transport of illegal weapons and ammunition into the eastern provinces of the Democratic Republic of the

Congo. But, as late as December of 2008, weapons were still flowing into the region.

The methods used to raise funds and smuggle weapons into the region result in a

significant degree of animosity from the local population, giving rise to the Insurgent

Funding Incident Loop.

The incidents the insurgents inflict upon the population to support themselves

really hurt the average citizen in the Democratic Republic of the Congo. One of the

most heinous incidents involves the taking of young girls as sex slaves. Some of the

young girls are raped so badly they require surgery to repair damaged reproductive

organs. Such incidents cause the local population to rebel against the insurgents,

causing the Insurgent Funding Incident Loop to be a balancing loop. The more negative

incidents the insurgents impose upon the local population the less the local population

supports the insurgents. With this model, a researcher can begin to make assumptions

as to what effects would arise from changes in policies. These will be discussed in the

conclusion.

CHAPTER 5: CONCLUSIONS

The Democratic Republic of the Congo has a number of issues that must be

addressed both internally and externally in order to establish a more stable country.

The key issues include establishing control over the insurgency and government control

over the mining sites. International support will be necessary to address these regional

issues. If the international community does not contribute the resources and expertise

necessary to help deal with these continuing crises, it will continue to escalate. On a

positive note, the country did hold successful elections, and the international community

was there to help ensure they were fair. The next step is to ensure this Democratic

exercise continues. It is essential that the Congolese government act responsibly and

ethically as well. For instance, it must use their resources to help better the lives of their citizens and provide them much needed opportunities. I will use the information in the Rand Corporation's Beginner's Guide to Nation Building and its essential elements to provide information on what must be addressed in each area to insure a viable Democratic Republic of the Congo. In the Rand study, the essential elements are in order of priority: security, humanitarian relief, governance, economic stabilization, democratization, and development.[42] I will define these as they are defined in the guide, discuss the current conditions in the Democratic Republic of the Congo for each area, and make recommendations to improve each area. The table below shows the mapping from model elements to the indices and build up to where they impact on the nation building elements. This provides a clear path to how the model can be used and show where the model elements impact upon on the six nation-building elements. As can be seen from the table, there is an overlap between elements of the model and the nation-building elements. As with any complex system, change will affect more than one area and that is what the model hopes to show. An example form the table below is that a change in a government policy will have an impact on Governance, Democratization and Development. A policy can not be viewed simply as a cause and effect for the particular area the government is trying to address, it must be viewed in the larger, more complex system so the second and third order effects can be seen and mitigated if necessary.

Nation Building Elements	Security	Humanitarian Relief	Governance	Economic Stabilization	Democratization	Development
	Counter-Insurgency Index	**Human Rights Index**	**Polity Index**	**Social Capacity Index**	**Polity Index**	**Polity Index**
	Insurgency Index	Government Solider Interference in Civilians Lives	Government Policies	War Weariness	**Social Capacity Index**	**Social Capacity Index**
	Government Soldier Corruption	Outside Country Actors	Government Soldier Corruption	Unemployment	Government Policies	Unemployment
	Total Action to Suppress Insurgent Activity	Insurgent Activity	Pressure to Reduce Insurgent Activity	Government Policies	Pressure to Reduce Insurgent Activity	Government Soldier Corruption
	Material Support to the Insurgency		Security		Unemployment	Government Policies
	Outside Country Actors				Security	War Weariness
	Illegal Mineral Mining				Government Soldier Corruption	Security
	War Weariness				War Weariness	Pressure to Reduce Insurgent Activity
	Weapons Replacement					
	Government COIN Troops Increased					

Table 6: Mapping of Model Elements to Nation-Building Elements

5.1 Security: peacekeeping, law enforcement, rule of law, and security sector reform. The primary issues with security in the Democratic Republic of the Congo are the lack of enough government counter-insurgency troops and the government soldier corruption. There are not enough assets available to control the border region to stop the illegal flow of weapons and goods that support the insurgency. This capacity must be increased through manpower and technology that allows for the closing of the borders. It will also take the cooperation of the countries that border the Democratic Republic of the Congo, specifically Rwanda and Uganda. But, this increase in capacity alone will not solve the issue. The government soldier corruption must be addressed in

the most severe way to ensure the local population begins to feel they are truly being protected and can trust the government forces. A higher capacity without a higher integrity will only cause more people to support the insurgency. Everyone in the system must do the right thing and those who do not must face consequences. The local population must be able to depend on the Congolese police and military to provide the security they need and if they don't, and they are found to be corrupt, the populace must know they will be punished for that corruption in a timely manner. The system must not be corrupt.

The citizens of the Democratic Republic of the Congo do not feel they have security for a variety of reasons. First, the militias have free reign in many of the eastern provinces of the Democratic Republic of the Congo. These include Nord and Sud Kivu where Laurent Nkunda's militia controls much of the area, allowing him to terrorize the local populace with impunity. There is no law in this area other than what he allows and provides. This law is, of course, not applied equally, thus leaving the populace without a sense of security. Next, the government's forces in the area, due to poor governance and low pay, do not provide a sense of security because they often extract a toll from the populace for passage on public roadways. Further, Humanitarian International cites many cases where women and young girls are raped and tortured. The population has a sense that nothing is going to ever change, a sense of hopelessness.

A recent development that has the potential to help security is the arrest of Laurent Nkunda on January 22, 2009 by Rwandan security forces when he crossed over into their country. The arrest was evidently part of a deal that President Kabila made with Rwanda. He is allowing Rwandan military forces into eastern Democratic

Republic of the Congo Kivu provinces to perform joint operations with the Congolese military in what is believed to be an operation to take down both the FDLR and CNDP at the same time.[43] The capture of Nkunda has the potential to help ease the conflict in eastern Democratic Republic of the Congo, but allowing the Rwandan military into the Democratic Republic of the Congo, even though they are working jointly with the Congolese military, may actually cause more issues in the long run. It is promising to see the cooperation between these two countries with their history of mistrust, potentially helping ease the long tradition of distrust. But, if the locals do not accept this incursion, they will not provide the necessary information to find and stop the insurgents. If this operation is not conducted properly, it has the potential to cause more civilian displacement and suffering, requiring even more humanitarian assistance.

     5.2 Humanitarian Relief: return of refugees and response to potential epidemics, hunger, and lack of shelter. Although security has to be the number one priority for a country to develop, almost simultaneously the humanitarian relief effort needs to be in place to provide aid to a large internally displaced population. The elements from the model that tie directly to the humanitarian relief are Insurgent Activity, Outside Country Actors, and Government Soldier Interference in Civilians Lives. The insurgent activity must be reduced in order for the people to be able to begin to rebuild their lives. If they have to remain on the move in order to achieve some sense of security, their only worry is survival. They remain on the move because they do not trust the insurgents or the government soldiers to help them. They see both as exploiters; the same way they see the outside country actors of Uganda and Rwanda.

     In order for aid agencies to assist the population, they must be secure. Thus far that has not been the case in the Democratic Republic of the Congo. The Democratic

43

Republic of the Congo already has a very large displaced person population that stems from the continued conflict in eastern Democratic Republic of the Congo and the Rwandan genocide a few years ago. In fact, according to the Internal Displacement Monitoring Centre, over a million people have been displaced in eastern Democratic Republic of the Congo.[44] These people have to remain on the move to avoid the warring factions which, along with security concerns, makes if very difficult for international aid providers to support their needs. Of the over one million displaced persons, 45,000 die every month and 47% of them are children. Most of these deaths are from malnutrition which either leads to starvation or disease that cannot be fought off. These numbers are staggering and yet there is very little media attention about this problem. These displaced persons do not just sit around waiting for their aid relief; they are engaged in the process in one way or another. They are either supporting the insurgency and thus instability, or they are supporting the government and reconstruction.

There is substantial International aid money coming into the Democratic Republic of the Congo from a lot of donors. The numbers for humanitarian aid by year for the Democratic Republic of the Congo are listed below in Table 7.

Humanitarian Aid To DRC	2002	2003	2004	2005	2006	2007
All Donors Combined, (USD, millions)	$60.68	$74.94	$107.9	$251.29	$237.44	$236.22

Table 7: Humanitarian Aid to the Democratic Republic of the Congo [45]

As can be seen by the table above, humanitarian aid grew dramatically in the Democratic Republic of the Congo until 2005, since then the aid has started to decline. There are a number of possible reasons for this decline, such as other needs

throughout the world that took precedence (Iraq, Afghanistan, and Sudan) or donor fatigue.

Humanitarian aid and security are inexorably linked. Without security, the aid agencies can not provide the services needed to support displaced persons. The establishment of camps for displaced persons and the security of them have to be a priority. These displaced persons need the assistance because without clean water, food, and medical attention they will continue to die in unimaginable numbers. The aid personnel can not be asked to put themselves at risk any more than necessary. If they are captured or killed, they will not be available to provide the support these displaced persons need.

The second part of this equation is that these internally displaced persons will need assistance to re-establish themselves after the security improves. This is a tremendously important, but also tremendously difficult, task. In many cases they have left their property to escape the violence. After the people leave, others establish themselves in that location. How can the original residents make claims to their old property over the new residents? The manner in which this is handled will be critical for the continued stabilization of the country once security is attained. The government and international actors must be cautious not to disenfranchise anyone. An agreement must be mediated between all parties in these disputes without any credence given to sex, race, religion or ethnic background.

5.3 Governance: resuming public services and restoring public administration. Improving the governance in the Democratic Republic of the Congo is a daunting task because it has been so poor for so long. But, by looking at the WGI and the concept model, both indicate the focus must be on improving stability within the Democratic

Republic of the Congo first. If the stability issue is not addressed, it will be difficult for the democracy they have voted for to remain in place. People will become tired of the constant fighting and will be willing to give up on democracy in exchange for any government that will bring stability. The key elements in the model for governance are Government Policies and Government Soldier Corruption and Pressure to Reduce Insurgent Activity. The government policies must ensure the people are able to maintain a voice in their governance of their daily lives. The people must have a voice in the decisions and must feel these decisions are being made in their interest. One of the initiatives that have been started by the Congolese government is to decentralize political and administrative control.[46] This action will help to bring the people into the decision making process and provide the voice they need. But, without resources that voice will mean nothing. As the control is pushed to these localities, there must be money for local projects and trained people to execute them. This is where the international community must step in and help. The people have to be taught to fish instead of just giving them fish. The international community must help the Democratic Republic of the Congo's fledgling democracy by helping it quickly build governance capacity. In addition, the Democratic Republic of the Congo government must accept and adopt the changes the international community is helping them develop. This help includes riding the government of as much corruption as quickly as possible. They cannot continue to make contracts on mining that do not help provide jobs and opportunity for its own population.

When elections were held in the Democratic Republic of the Congo, a major step forward was taken for the country and President Joseph Kabila was provided the

46

authority to take action. This was not, however, an overwhelming victory as shown in

the results listed in Table 8 below.

Province	Voter Part.	Kabila	Bemba	Gizenga	Mobutu	Kashala	Ruberwa	All Others
Kinshasa	72.1	14.7	49.1	22.0	0.2	7.7	0.3	6.0
Bas-Congo	76.0	13.9	36.2	1.8	0.7	6.5	0.3	40.6
Bandundu	69.3	2.6	9.7	80.1	1.2	0.4	0.1	5.9
Equateur	74.3	1.8	63.7	0.3	30.6	0.1	0.1	3.4
Orietale	77.6	70.3	5.2	0.9	5.1	0.4	6.1	12.0
Maniema	85.0	89.8	0.4	0.2	0.3	0.2	0.4	8.7
North Kivu	81.0	77.7	0.8	0.4	0.5	0.5	3.8	16.3
South Kivu	90.2	94.6	0.3	0.2	0.2	0.1	2.0	2.6
Katanga	71.6	78.0	3.4	0.5	0.5	2.7	0.4	14.5
Kasai Orientale	39.2	36.1	14.7	1.2	0.5	17.9	0.8	28.8
Kasai Occidental	45.3	11.4	31.9	14.7	0.4	17.8	1.7	22.1
Total DRC	71.0	44.8	20.0	13.0	4.8	3.5	1.7	12.2

Table 8: Presidential Election, July 30, 2006 (first round results, in percent)[47]

This information indicates just how split the politics are in the Democratic Republic of

the Congo and how difficult it will be to bring the factions together to form a stable,

inclusive, and functioning government. Without these factions working together, there

will be no hope to stop the violence and corruption to provide a better life for the

citizens.

The government of President Kabila has been taking steps to improve

governance in the Democratic Republic of the Congo. One of those steps, with the

intention of stopping the looting of state property, was to fire some of the heads of the

government owned enterprises in 2007.[48] In fact, according to the World Bank's

Governance Matters VII: Governance Indicators for 1996-2007, the Democratic

Republic of the Congo saw an improvement in regulatory quality. It is promising that

regulatory quality is improving, but on the scale used, -2.5 to 2.5, it was still rated a -

1.35, indicating that regulatory quality is still in the bottom half of the scale. In the World

Governance Index (WGI), the World Bank uses 6 dimensions to rate governance: voice

and accountability; political stability - no violence; government effectiveness; regulatory quality; rule of law; and control of corruption. The scores for each of these areas for the Democratic Republic of the Congo between 2002 and 2007 are outlined in the table below.

Democratic Republic of the Congo	Voice & Accountability	Political Stability	Government Effectiveness	Regulatory Quality	Rule of Law	Control of Corruption
2007	-1.46	-2.26	-1.68	-1.35	-1.67	-1.27
2006	-1.55	-2.39	-1.68	-1.40	-1.73	-1.44
2005	-1.66	-2.32	-1.67	-1.62	-1.72	-1.41
2004	-1.73	-2.22	-1.48	-1.70	-1.78	-1.39
2003	-1.58	-2.19	-1.45	-1.67	-1.85	-1.43
2002	-1.71	-2.22	-1.77	-1.71	-1.84	-1.46

Table 9: World Governance Indicators for the DRC, 2002-2007[49]

As can be seen in Table 9, there has not been any significant change in the governance index in the last 6 years. This is the same amount of time that Joseph Kabila has been in power but as of yet he apparently has not been effective in improving governance in the Democratic Republic of the Congo. However, this is not because he does not want to change, it is more an issue of lack of management ability at all levels as well as government capacity.

5.4 Economic Stabilization: establishing a stable currency and providing a legal and regulatory framework in which local and international commerce can resume. The Social Capacity Index which includes the Government Policies, Unemployment and War Weariness align with the nation-building element of Economic Stabilization. The most critical element though is the Government Policies. The Democratic Republic of the Congo must adopt policies that ensure a stable currency and must ensure that government expenditures are in line with government revenue. They cannot have a policy of printing more money when their expenditures exceed their revenue because it damages the value of the Congolese Franc.

The Democratic Republic of the Congo has a central banking authority, the *Banque Centrale du Congo* (BCC). In 2007, the Congolese Franc saw large fluctuations in its value. This stems from the printing of the Congolese Franc to meet government budget deficits, which, in turn, contributed to the high rate of inflation (11.4%) in the Democratic Republic of the Congo. The government was able to increase its revenues through more enforcement of tax collection by the General Tax Department (DGI) and enforcement of revenue collection from the Customs and Duties Office (OFIDA). The revenues collected were $60.9 million and $78.8 million respectively. This is a positive trend and must be continued in order to help finance the needs of the people in the Democratic Republic of the Congo.

The Democratic Republic of the Congo was ranked number 181 out of 181 countries in World Banks study, Doing Business, Comparing Regulation in 181 Economies—certainly not a climate for economic growth or stabilization. This is the same ranking they held in the 2008 document and the current document shows no significant reforms were made to help the business climate.[50] The ranking is based on how the country ranks in ten different categories which are listed in Table 10 for the Democratic Republic of the Congo.

Democratic Republic of the Congo	
Category	**Rank**
Starting a Business	154
Dealing with Construction Permits	141
Employing Workers	175
Registering Property	152
Getting Credit	163
Protecting Investors	150
Paying Taxes	153
Trading Across Borders	160
Enforcing Contracts	173
Closing Business	150

Table 10: Ease of Doing Business for the DRC out of 181 Economies

In order for the Democratic Republic of the Congo to attract more Foreign Direct Investment (FDI), the government of the Democratic Republic of the Congo must improve its ease of doing business. It must begin by eliminating the burdensome steps for each of the categories above for businesses. Each step in the process is another opportunity for officials to demand graft from the potential business. This is a disincentive for businesses to develop in the Democratic Republic of the Congo. Another issue that must be addressed is the import and export policies. These need to be adjusted so that businesses are more willing to move their products into and out of the country legally instead of using smuggling operations. The average freight cost to import and export goods is over $2500 per container. The Democratic Republic of the Congo has the natural resources that can help to drive their economy. There is a huge market available for these natural resources; it must improve control and access of the resources. One method they need to look at is the privatization of these industries. This will help to improve the efficiency and minimize the corruption involved.

5.5 Democratization: building political parties, free press, civil society, and a legal and constitutional framework for elections. The key to success is to transform this violent society into a peaceful one by Reducing Insurgent Activity. This not only means stopping the wars between the FARDC and insurgents, but to stop the violence between citizens. As stated in the Beginners Guide to Nation Building, the successful transformations of violent societies into peaceful ones are almost always accompanied by some degree of economic development and political reform.[51] As indicated in Table 8 above, there are plenty of political parties in the Democratic Republic of the Congo, and the presidential election was conducted in a free and fair way. The Social Capacity and Polity Index are critical to ensuring continued democratization in the Democratic

Republic of the Congo. These indices map directly to democratization and some of the elements in the model that are critical to the success is the Pressure to Reduce Insurgent Activity. The people must be able to have a voice in their government in order to develop a democracy. They had this voice during the election process, but, in 2007, Joseph Kabila's main challenger was forced to exile in Portugal. This crackdown on Kabila's top opposition brings into doubt the ability to sustain a real democracy with political party pluralism.[52] The country has written and ratified a new constitution that took effect with the election of Kabila as president in 2006. The media in the Democratic Republic of the Congo are not free; they often face arrest, threats and violence, especially if they are trying to expose corruption.[53] Without a free press, it will be difficult to expose corruption, which is the first step to stopping it.

The areas that must be addressed include stopping the corruption, easing civil unrest and allowing a free press. The country continues to be ravaged by civil unrest due to the actions of insurgents, especially in the eastern provinces. There are continual strikes in the country as a result of either low pay or back wages owed. As seen in the model, Government Soldier Corruption helps provide the insurgents with incentive to garner support from the locals. The international community must get involved immediately and assist in building up the management ability and capacity for the Democratic Republic of the Congo government. The actions of the United States as they help train the Democratic Republic of the Congo soldiers, especially regarding treatment of civilians and human rights, is a step in the right direction.

5.6 Development: fostering economic growth, poverty reduction, and infrastructure improvements. The key elements from the model for development are Government Policies and Unemployment. The government must adopt policies that

improve the employment opportunities for their citizens. The mineral wealth of the

Democratic Republic of the Congo should be providing the resources necessary to help

the Congolese people better their lives. The figure below shows the Official

Development Assistance that is pouring into the Democratic Republic of the Congo.

This money is critical, but it must be used wisely. As can be seen from the figure, the

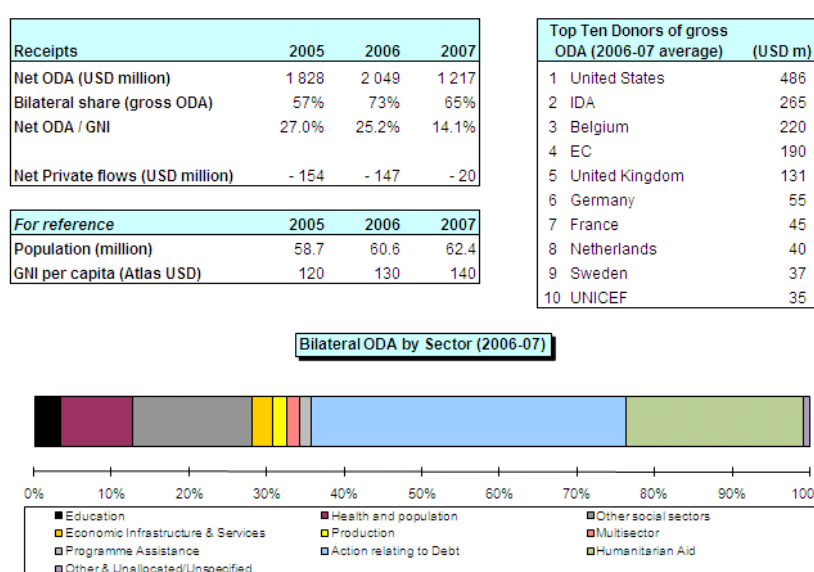United States is the top donor in terms of dollars given.

Receipts	2005	2006	2007
Net ODA (USD million)	1 828	2 049	1 217
Bilateral share (gross ODA)	57%	73%	65%
Net ODA / GNI	27.0%	25.2%	14.1%
Net Private flows (USD million)	- 154	- 147	- 20

For reference	2005	2006	2007
Population (million)	58.7	60.6	62.4
GNI per capita (Atlas USD)	120	130	140

Top Ten Donors of gross ODA (2006-07 average)		(USD m)
1	United States	486
2	IDA	265
3	Belgium	220
4	EC	190
5	United Kingdom	131
6	Germany	55
7	France	45
8	Netherlands	40
9	Sweden	37
10	UNICEF	35

Bilateral ODA by Sector (2006-07)

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

■ Education ■ Health and population ■ Other social sectors
□ Economic Infrastructure & Services □ Production ■ Multisector
□ Programme Assistance ■ Action relating to Debt ■ Humanitarian Aid
■ Other & Unallocated/Unspecified

Figure 10: Official Development Assistance (ODA) to the Democratic Republic of the Congo [54]

The Democratic Republic of the Congo signed an agreement with China that

provides exclusive mineral mining rights to cobalt and copper in return for roads,

railways, hospitals and schools. These are much needed projects for improving the

infrastructure of the Democratic Republic of the Congo, but they do not employ as many

Congolese as they could. China has the same issue of employment for their citizens

and in its arrangement with the Democratic Republic of the Congo; China is bringing

over its own people to work on the project. There is a stipulation in the agreement that

some Congolese must be hired to work on the infrastructure projects, but the vast

majority of the workforce will be Chinese. Regardless, the arrangement with China

does not address the Democratic Republic of the Congo's underlying need for improved

infrastructure which is a need to build their own expertise and capacity so they are not

dependent on the international community to bring in outside employees to build their

infrastructure. Plus, they will need the expertise to maintain it. This capacity can only

be achieved through education, which is poorly funded in the Democratic Republic of

the Congo. China has taken the same approach in Zambia and has seen a huge

blowback because in Zambia the population feels the Chinese companies pay the

lowest wages and they do not care about safety. Plus, they do not believe that the

Chinese follow through on their promises. In Zambia, the Chinese have offered free

sports facilities as part of their effort to garner public support, but the facilities do not

always get built. Even though the Chinese investment has provided some jobs in the

mineral extraction business, Zambia has lost a large number of manufacturing jobs due

to the cheap goods that China imports into Zambia for sale.[55]

The same result cannot be tolerated for the Democratic Republic of the Congo.

Unlike Zambia, which has not experienced war for 30 years, the Democratic Republic of

the Congo is still in the midst of an armed conflict. In order to break this cycle of

violence, the country must see dramatic improvements in the infrastructure. But, this

needs to be built by the Congolese people. They need the jobs and need to have a

vested interest in getting the infrastructure built as well as maintaining that

infrastructure. Rarely is anything that is given appreciated in the long term. But, the

harder one has to work to achieve a goal, the more the achievement of the goal is

appreciated and protected. There are many countries that can provide support to

rebuild infrastructure. Much of the United States' capacity has been tied up in Iraq, but

as that war winds down that capacity should be freed up. Some of it will surely be destined for Afghanistan, but a portion of it could be directed into the Democratic Republic of the Congo to train and assist the Congolese in developing their infrastructure. This would help the employment issue in a manner similar to what occurred after the Great Depression in the United States. If good jobs can be provided for the working age Congolese, then, according to the model, they will be less inclined to join the insurgency.

In reviewing the concept model, literature, and the necessary components to build nations, it is clear there is no "Silver Bullet" that will fix the issues in the Democratic Republic of the Congo. It is going to take a combination of approaches that need to be addressed simultaneously. There is no single organization or country that can fix it alone, but there are many that should have an interest in seeing the Democratic Republic of the Congo become a viable and vibrant democracy. Since the time President Clinton was in office, we have witnessed the impact failed states can have on not just the United States, but the world. With its vast natural resource potential, the Democratic Republic of the Congo can be a great asset to the world community or to a terrorist network. We have clearly seen by actions from China, Russia and other countries that want to compete with us, other countries do not necessarily have a moral compass when it comes to doing business with countries or failed states that have resources they desire to continue driving their own economies. The Western world can not afford to sit back and allow the Democratic Republic of the Congo to become another failed state.

CHAPTER 6: FURTHER RESEARCH

Future research needs to focus on completing the stock and flow diagram that goes along with the enclosed conceptual diagram. Once complete, the researcher will have a great deal of data available to input into the model. In order to assist the research, I have included below some of the indices that have been discovered through research for this paper. This is not an all-inclusive list and, in fact, there may be some data lacking because it is not readily available. This is where the researcher will need to review literature and pull qualitative data that must be translated into quantitative data that can be used in the model. A method to translate this data is also presented below. This method is useful for translating qualitative data into quantitative data, not just for this model, but for any model in the social sciences or human behavior areas.

END NOTES:

1. McCrummen, Stephanie, "Prevalence of Rape in E. Congo Described as Worst in World," *The Washington Post*, September 9, 2007.

2. George W. Bush, The National Security Strategy of the United States of America. Washington: The White House, September 2002.

3. Donovan C. Chau, U.S. Counterterrorism in Sub-Saharan Africa: Understanding Costs, Cultures, and Conflicts, September 2008.

4. AFRICOM, "Africa Command's Focus," http://www.africom.mil/africomFAQs.asp (accessed November 6, 2008).

5. Martin Meredith, *The Fate of Africa: A History of Fifty Years of Independence.* (Cambridge, MA, Perseus Books Group, 2005), 95.

6. Adam Hochschild, *King Leopold's Ghost: A Story of Greed, Terror, and Heroism in Colonial Africa*, (Boston, MA: Mariner Books, 1998), 120.

7. Ibid., at 179-180.

8. Ibid., at 212.

9. Martin Meredith, *The Fate of Africa: A History of Fifty Years of Independence.* (Cambridge, MA, Perseus Books Group, 2005), 96-97.

10. Ibid., at 97.

11. Feinstein International Center, Humanitarian Agenda 2015 Democratic Republic of Congo Case Study, October 2007, http://www.scribd.com/doc/2094975/HA2015-Democratic-Republic-of-the-Congo-web (Accessed December 9, 2008).

12. Martin Meredith, *The Fate of Africa: A History of Fifty Years of Independence.* (Cambridge, MA, Perseus Books Group, 2005), 110.

13. Ibid., at 109.

14. Wikipedia, "History of the Democratic Republic of the Congo," http://en.wikipedia.org/wiki/Democratic_Repbulic_of _the_Congo.html (accessed December 9, 2008).

15. CIA World Fact Book, "Congo, Democratic Republic of the," January 22, 2009, http://www.cia.gov/library/publications/the-world-factbook/fields/2096.html (accessed January 22, 2009).

16. Info Please, "Congo, Democratic Republic of the," http://www.infoplease.com/pa/A0198161.html (accessed August 7, 2008).

17. CIA World Fact Book, "Congo, Democratic Republic of the," January 22, 2009, http://www.cia.gov/library/publications/the-world-factbook/fields/2096.html (accessed January 22, 2009).

18. Wikipedia, "History of the Democratic Republic of the Congo," http://en.wikipedia.org/wiki/Democratic_Repbulic_of _the_Congo.html (accessed December 9, 2008).

19. Martin Meredith, *The Fate of Africa: A History of Fifty Years of Independence.* (Cambridge, MA, Perseus Books Group, 2005), 540.

20. United Nations Environmental Program, "Mining in the Democratic Republic of the Congo," 2005, http://maps.grida.no/go/graphic/mining-in-the-democratic-republic-of-congo (accessed December 9, 2008).

21. John McCreary, "NightWatch," October 27, 2008, http://nightwatch.afcea.org/NightWatch_20081027.htm (accessed November 13, 2008).

22. Benjamin Coglan, Pascal Ngoy, Flavin Mulumba, Colleen Hardy, et al., "Mortality in the Democratic Republic of Congo, An Ongoing Crisis," http://www.theirc.org/resources/2007/2006-7_congomortalitysurvey.pdf (accessed November 11, 2008).

23. Conrad Taylor, "The Curse of Congo's Mineral Wealth," November 11, 2008, http://conradiator.wordpress.com/2008/11/11/the-curse-of-congos-mineral-wealth/ (accessed December 9, 2008)

24. David Blair, "British Ally Behind World's Bloodiest Conflict," April 29, 2006, http://www.telegraph.co.uk/news/worldnews/africaandindianocean/democraticrepublicofcongo/1516817/British-ally-behind-worlds-bloodiest-conflict.html (accessed December 9, 2008).

25. Ibid.

26. Richard Behar, "Mineral Wealth of the Congo," May 9, 2008, http://www.fastcompany.com/node/849680/print (accessed December 9, 2008).

27. Thaindian News, "India, Democratic Republic of Congo Sign Pact to Transform Ties," http://www.thaindian.com/newsportal/business/india-democratic-republic-of-congo-sign-pact-to-transform-ties_10026840.html (accessed December 28, 2008).

28. Office of the Spokesman for the U.S. State Department, "United States Support to the Democratic Republic of Congo," 2007, http://www.state.gov/r/pa/prs/ps/2007/oct/94456.htm (accessed December 28, 2008).

29. Jay D. Forrester, "System Dynamics and the Lessons of 35 Years," April 29, 1991, http://sysdyn.clexchange.org/sdep/papers/D-4224-4.pdf (accessed February 10, 2009), 9.

30. Catherine M. Banks and John A. Sokolowski, *Principles of Modeling and Simulation: Applications in International Studies* (Boston, MA, Wiley STM, 2009), Chapter 2.

31. Edward G. Anderson Jr., *An Initial Simulation Model for Aiding Policy Analysis in Urban Insurgencies*, (Austin, TX, McCombs School of Business, 2007).

32. John A. Sokolowski & Catherine M. Banks, *From Empirical Data to Mathematical Model: Using Population Dynamics to Characterize Insurgencies,* (Suffolk, VA, Virginia Modeling, Analysis and Simulation Center, 2007)

33. U.S. Department of the Army, *Operations*, FM 3-0 (Washington, DC: U.S. Department of the Army, February 27, 2008), 2-2.

34. Feinstein International Center, "Humanitarian Agenda 2015 Democratic Republic of Congo Case Study," October 2007, http://www.scribd.com/doc/2094975/HA2015-Democratic-Republic-of-the-Congo-web (accessed December 9, 2008).

35. United Nations Population Division, "World Population 2006," 2008, http://www.un.org/esa/population/publications/wpp2006/2006_wppchart.pdf (accessed February 10, 2009).

36. United Nations Population Division, "The World at Six Billion," October 12, 1999, http://www.un.org/esa/population/publications/sixbillion/sixbilpart4.pdf (accessed February 10, 2009), 45.

37. Ibid., at 47.

38. Fund for Peace, "Democratic Republic of Congo Country Study," http://www.fundforpeace.org (accessed December 17, 2008).

39. Jeffrey Gettleman, "Rwanda Stirs Deadly Brew of Troubles in Congo," *New York Times*, December 3, 2008.

40. United Nations, "Final report of the Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth of the Democratic Republic of the Congo," October 16, 2002, http://documents-dds-ny.un.org/doc/UNDOC/GEN/N02/621/79/pdf/N0262179.pdf?OpenElement (accessed August 12, 2008).

41. United Nations, "Final report of the Group of Experts on the Democratic Republic of the Congo," February 13, 2008, http://documents-dds-ny.un.org/doc/UNDOC/GEN/N08/217/22/pdf/N0821722.pdf?OpenElement (accessed August 12, 2008).

42. Keith Crane, et al., *Beginner's Guide to Nation- Building* (Santa Monica: RAND Corporation, 2007), 189.

43. Eddy Isango, "Congo Rebel Laurent Nkunda Arrested," *Times Magazine,* January 23, 2009, http://www.time.com/time/world/article/0,8599,1873551,00.html (accessed February 16, 2009).

44. Internal Displacement Monitoring Centre, "Focus on North Kivu Province: IDPs on the move face grave human rights violations," November 21, 2008, http://www.internal-displacement.org/8025708F004CE90B/(httpCountries)/554559DA500C8588802570A7004A96C7?OpenDocument (accessed December 17, 2008).

45. Organisation for Economic Cooperation and Development, "Humanitarian Aid - International Development Statistics for DRC," February 16, 2009, http://stats.oecd.org/qwids/#?x=1&y=6&f=2:40,4:1,5:3,9:85,3:227,7:1&q=2:40+4:1+5:3+9:85+3:227,228,229,231,233,G36,G37,G38+7:1+1:1+6:2002,2003,2004,2005,2006,2007 (accessed February 16, 2009).

46. Chris Hennemeyer, Center for Strategic and International Studies, "Governance Not Guns in the Congo," http://forums.csis.org/africa/?p=85 (accessed February 18, 2009).

47. Tatiana Carayannis, "Elections in the DRC, The Bemba Surprise," United States Institute for Peace, February 2008, http://www.usip.org/pubs/specialreports/sr200.html (accessed November 8, 2008).

48. "Congo-Kinshasa Parastatal Heads Roll in Bid to Assert 'Good Governance,'" Africa News, May 4, 2007 in LexisNexis Academic (accessed February 17, 2009).

49. Daniel Kaufman, Aart Kraay, & Massimo Mastruzzi, World Bank Policy Research, "World Governance Indicators," June, 2008, http://info.worldbank.org/governance/wgi/pdf/wgidataset.xls (accessed February 17, 2009).

50. World Bank, "Doing Business 2009, Country Profile for Congo, Democratic Republic of," 2008, http://www.doingbusiness.org/Documents/CountryProfiles/ZAR.pdf (accessed February 18, 2009).

51. Keith Crane, et al., *Beginner's Guide to Nation- Building* (Santa Monica: RAND Corporation, 2007), 189.

52. Freedom House, "Freedom in the World – Congo, Democratic Republic of," 2008, http://www.freedomhouse.org/template.cfm?page=22&country=7525&year=2008 (accessed September 9, 2008).

53. British Broadcasting Corporation, "Country profile: Democratic Republic of Congo," January 28, 2009, http://news.bbc.co.uk/2/hi/africa/country_profiles/1076399.stm (accessed February 19, 2009).

54. Organisation for Economic Cooperation and Development, "Democratic Republic of the Congo Official Development Assistance," January 2, 2009, http://www.oecd.org/dataoecd/18/31/1901167.gif (accessed February 12, 2009).

55. Tim Whewell, British Broadcasting Company, "China's Zambia Role Sours," April 18, 2008, http://news.bbc.co.uk/1/hi/programmes/newsnight/7355369.stm (accessed September 9, 2008).